THE

MEDICAL AND SURGICAL REPORTER.

No. 1512.] PHILADELPHIA, FEBRUARY 20, 1886. [Vol. LIV.—No. 8.

ORIGINAL DEPARTMENT.

LECTURE.

TETANUS.

BY N. SENN, M. D., MILWAUKEE, WIS.,

Professor of the Principles and Practice of Surgery and Clinical Surgery.

(*Concluded from page* 197.)

The last disease which it might be mistaken for is hydrophobia. The muscular spasms in hydrophobia are more of a clonic character, and remain limited to the muscles of deglutition and respiration. In the prognosis you must be guided, in the first place, by the extent of the central lesion, as evidenced by the number of muscular groups affected. If the central irritation is circumscribed, only a limited number of muscular groups are affected, and when this is the case, we are usually dealing with a mild form of the disease. If, on the other hand, in the early history of the disease there is rigidity of an extensive muscular area, the disease is a grave one; and more particularly if at the same time, as will likely be the case, there is a high temperature. Time is one of your most important elements in rendering a prognosis. Hippocrates always considered the prognosis dubious the first four days. Severe cases may terminate fatally from the second to the sixth day, usually, so that time gained after the sixth day, with the symptoms remaining stationary, the prognosis becomes more favorable as time increases. In the mild cases of tetanus, terminating in recovery, it may take weeks and sometimes months before all muscular rigidity has disappeared. I have observed several severe and acute cases where within forty-eight hours after the commencement of the first symptoms, death occurred; but after the sixth day, with symptoms remaining stationary, the surgeon's hope increases as time elapses.

Another important point is the probable cause of the disease. If the injury has been slight, infection limited, the disease assuming a mild type, your prognosis may be favorable; but should the symptoms develop themselves incidental to injuries grave in themselves, the prognosis becomes correspondingly serious, so that in tetanus attending severe lesions, followed by traumatic infection of other types, attended, perhaps, by septicæmia or pyæmia, our prognosis always must be unfavorable; in other words, if there is no possibility of removing the primary cause or source of infection or irritation, the prognosis increases in gravity.

Like in all other forms of wound infective diseases, the prophylactic treatment is the most important. Practically, it is important to recognize the microbic origin, and institute early and efficient treatment in accordance with this supposition. I therefore, again, emphasize the necessity of adopting aseptic measures in the treatment of wounds, with a view not only of preventing suppuration, but also other forms of infection. There can be no question but that since the introduction of antiseptic surgery tetanus has been uncommon. The clinical fact is patent that it is prone to follow injuries where a foreign body has remained in the wound, and where subsequently from this cause there is greater danger of infection on the one hand, and peripheral irritation on the other; this is especially true of injuries about the hand. It is therefore of paramount importance to treat slight injuries of

the hand, and more especially 4th of July injuries, which so frequently end in tetanus, with the greatest care. No matter how trifling the injury may be, disregard in this direction has only too often been followed by the most serious consequences. A small wound of the hand when neglected may serve as an avenue for the ingress of germs, which according to their action may destroy life in a variety of ways. If necessary, enlarge the wound, search carefully for foreign bodies, if there is reason to believe that they are present; take plenty of time to secure an aseptic condition for the wound, and conduct the subsequent treatment on strictly antiseptic principles. If suppuration should take place, be sure to secure efficient drainage, and resort to frequent antiseptic irrigations. By following these directions you will not only have the satisfaction of securing the most favorable condition for the healing of the wound, but you will have, at the same time, carried out the most efficient prophylactic treatment against tetanus.

In the curative treatment, we consider first the importance of removing the source of infection and irritation. If a foreign body remains in the wound, search diligently for it, and if possible remove it. If the injury is attended by inflammation, burrowing of pus, destruction of tissue underneath the skin, secure ample and efficient drainage; in other words, convert the wound, as near as you can, from a septic into an aseptic condition. If we are dealing with a painful or tender cicatrix, which by producing peripheral irritation may determine tetanic spasms, it is proper to excise it. We can readily conceive that the infection may have been so mild as to produce only slight changes in the spinal cord, which but for some peripheral irritation would not have resulted in muscular spasms, and these are the cases where the removal of the exciting cause of the spasms is followed by a cure. I recollect a case of a mild form of tetanus, the result of a slight injury at the distal extremity of the index finger, which left a painful, tender scar, where the trismus was always increased by pressure, and which yielded promptly to removal of the exciting cause.

Another practical point in the treatment is the consideration of the propriety of amputation. If we are dealing with a compound comminuted fracture of the leg or arm, attended by all the symptoms of wound infection, and if present indications point towards the fact that the limb, independently of the existence of this complication, could not be saved, it is only rational to resort to amputation. It is, however, proper to state that in the great majority of the cases thus treated the tetanus continued unabated after the operation, and only in exceptional cases has life been saved by this procedure. Recognizing the fact that according to Rokitansky's theory, tetanus simply means "an ascending neuritis from the point of injury to the spinal cord," attempts have been made to arrest the progress of the disease by interrupting the nerve above the disease by nerve section, but results have shown that this operation had no effect in modifying the termination of the disease. You will readily understand *why*, if you assume its central location and its infective character. If tetanus were simply a "neuritis ascendens," we might reasonably expect to arrest the progress of the disease by division of the nerve trunk, by making the section through healthy tissue on the proximal side of the inflamed portion of the nerve. Granted that this operation would be efficient in preventing extension of the inflammatory process, it would not be applicable in all instances, from the inability of the surgeon to locate the disease with sufficient accuracy. Imagine an injury involving the palm of the hand, where we have filaments of different nerves implicated; it would be difficult if not impossible to ascertain in every case which nerve trunk was the seat of irritation. Taking it for granted that the neuritis is simply a local expression of the nerve injury, and that the real cause of tetanus consists in a specific infection, expending itself upon the brain and spinal cord, all efforts at correcting or curing the disease by submitting nerve trunks to operative measures are in discord with the true pathology of the disease. A somewhat similar and more recent operation for the same object as nerve section, we find in nerve stretching. For the last few years it has become the operation for all obscure nervous diseases, such as locomotor ataxia and central irritation of various kinds; consequently it is not surprising that it has been resorted to in the treatment of tetanus.

Benedict collected twenty-four cases of traumatic tetanus treated by nerve-stretching, of which number four recovered. I have stated that the disease in the milder form shows a tendency to cure itself; consequently, all operative measures which have been resorted to for the purpose of arresting its progress must be accepted with a great deal of caution, inasmuch as statistics have shown, on the whole, that twenty-five per cent. have

recovered without operative interference by the ordinary treatment; consequently, we have no proof that these four cases would not have recovered without nerve-stretching. All the possible good that can accrue from operations on nerve-trunks is simply to interrupt the nerve-current between the central disease and the peripheral irritation, and in many instances it is impossible to decide which of the larger trunks connects the two.

The medical treatment consists in the administration of drugs which are known to relieve muscular spasm. In animals tetanized with strychnine the spasms are promptly relieved by injecting hydrate of chloral into the veins. Woorara has been given with a view of relieving muscular spasm. On account of the potency of this remedy, its effects must be carefully watched and its use promptly suspended as soon as its physiological action becomes apparent. It is best administered hypodermatically. Bromide of potassium in large doses is well known to cause cerebral anæmia, and on this account it should be given to relieve the hyperæmia which is always present in the cerebro-spinal centres. A combination best adapted to fulfil the two most urgent indications, to relieve cerebral and spinal congestion and to overcome muscular spasm, are chloral and bromide of potassium. The remedies should be given in large doses, frequently repeated, until the desired result has been obtained. In severe cases, chloroform should be administered by inhalation with a view of relieving urgent symptoms; cold drafts of air, noise, and all forms of peripheral irritation, should be carefully excluded from the patient's room, for the purpose of securing rest, and with a view of not aggravating reflex spasm. Alcoholic stimulants and external heat are indicated when the heart's action has become feeble from general capillary stasis.

COMMUNICATIONS.

THE RATIONAL TREATMENT OF BRONCHIAL AND PULMONARY DISEASES BY THE PNEUMATIC CABINET.*

BY W. EVERETT SMITH, M. D. (HARVARD),

Fellow of the Massachusetts Medical Society; Member of the American Medical Association; formerly Asst. Physician to the Massachusetts Home for Intemperate Women.

"Phthisis has been cured by the topical application of appropriate remedial agents."

* See also my paper reprinted from the Journal of the American Medical Association, November 14, 1885.

The use of the Pneumatic Cabinet marks an important era in the treatment of lung diseases. Until within about thirty years, pulmonary consumption was almost universally regarded as an incurable disease. Indeed, it was only the occasional discovery of hardened masses and cavities that had healed over in the lungs of patients that had died of other diseases, that gradually led the medical world to believe that consumption could ever be cured. The possibility of a cure in lung diseases being then conclusively established, the causes of these diseases began to be more carefully studied, with the hope of finally discovering some treatment directed to their removal.

All the methods that have been used hitherto may have their measure of value, but all have failed to work the desired cure, because they were not founded upon a practical and physiological basis; for it is one of the soundest maxims of medicine, says Dr. Austin Flint, that the indications for medical treatment derived from science and from nature should harmonize, and be in accordance with the dictates of common sense.

Theory of the Treatment. — Adequately, then, to combat disease, it is necessary to thoroughly understand the functions and requirements of health; and it is suggestive of the value of the treatment of lung diseases by the pneumatic cabinet that *its development is in harmony with and depends upon physiological principles.* The life of lung tissue depends upon pure air; any interruption or irregularity in this supply means the beginning of lung disease.

The first symptoms of cough, expectoration, whether streaked with blood or not, pain in the chest, long-continued huskiness of voice or hemorrhage, slight in degree though they may be, and often disregarded, are always signs of danger—signs of some unhealthy process either in the bronchial tubes or in the lung itself. A certain portion of the air-passages is irritated or inflamed, and this irritation, if allowed to run unchecked, will oftentimes end in far more serious trouble.

For example, in acute bronchitis, or a "cold," as it is commonly called, as well as in chronic bronchitis, the bronchial tubes are inflamed, swollen, and clogged with a sticky secretion more or less difficult to expel by acts of coughing. So in whooping-cough, a disease that not infrequently leads to the development of consumption, the bronchial inflammation is always a very prominent symptom. In asthma, too, there is always a marked bronchitis, together with

a dilatation of the air-cells themselves (emphysema), which directly hinder the act of respiration and result in a distressing and serious, although not positively dangerous, affection, *unless* bronchitis or pneumonia should occur.

In pleurisy, the presence of water in the cavity of the chest compels the lung to occupy a much smaller space than is natural to it. The lung cells cannot expand, and gradually become closed to the entrance of air, if the pleurisy be of long duration. In pneumonia, on the other hand, certain of the air cells themselves are intensely inflamed, and so filled with blood that they become consolidated or solidified, resembling flesh in appearance, and are perfectly impervious to air. These inflamed portions of the lung are then utterly unfitted for respiratory and aerating purposes, and if the pneumonia become a chronic affair, may possibly never regain the power of properly expanding, unless some means are used to aid the powers of nature.

During all these inflammatory processes in the lung tissue, the act of breathing becomes an effort, the blood is imperfectly purified, strength and flesh are lost, and the whole system suffers. If moreover, in addition to the actual bronchial or lung disease in progress there be any inherited tendency to pulmonary weakness, together with a flat and undeveloped chest, the most favorable conditions exist for definite and serious lung trouble. The germs of disease find a portion of lung or bronchial tube that is weak, inflamed, and kept at rest. This is a quiet home for them, a fertile soil in which to grow and multiply, and they improve their opportunity.

In all this loss of health, however, the patient himself, as a rule, is hopeful; he says he has always, from childhood, been subject to "taking cold;" he is positive that this present trouble is merely temporary, and far from serious; that the cough is simply "bronchial;" that the blood very likely comes from the nose or the back of the mouth; that the pain in the chest is nothing new, but is due merely to a temporary "cold," and that flesh and strength will soon return. *In this very delay lies the greatest danger.* Too late he recognizes that the *golden* opportunity for a *speedy* recovery has passed, and that he must now *struggle* to regain his health and prevent the further ravages of the disease.

Whenever, then, the mucous membrane of the bronchial tubes is swollen and inflamed, as in bronchitis, "bronchial attacks," whooping cough, and asthma, and whenever lung tissue is consolidated or solidified, as in consumption, chronic pleurisy, and pneumonia, the life and healthful activity of the respiratory system is seriously impeded.

To soothe these inflamed portions of the lungs, to expand the consolidated portions, and at the same time to deposit remedial and antiseptic agents in cavities as well as upon the the weak and over-sensitive lung cells and bronchial tubes, is the method and the theory of the treatment of lung and bronchial diseases by the Pneumatic Cabinet.

DESCRIPTION OF THE PNEUMATIC CABINET.

The Cabinet is practically an air-tight chamber, large enough for a patient to sit or stand in. In front is a large plate-glass window, through which passes a gutta percha tube having a stop-cock on the outside, and ending in a trumpet-shape for receiving the medicated spray. The tube within the Cabinet is fitted to a flexible rubber mouth-piece for the patient. The patient enters the Cabinet and seats himself opposite the window. The door is closed, and a partial vacuum is made by an air-pump to the desired degree, as represented by a rise of mercury in a barometer connected with the inside of the Cabinet. The degree of rarefaction is usually that represented by a barometric rise of from one-tenth of an inch to an inch and a half, each tenth of an inch being equivalent to an altitude of 100 feet as regards the removal of external pressure from the chest-walls.

The patient now inserts the inhaling tube in his mouth and compresses the nostrils with the fingers to prevent the escape of air through the nose; the stop-cock is opened, and the outside air of the room rushes into the lungs, carrying with it the medicated spray, which is atomized by a cylinder of compressed air. The effect is a *forced involuntary inspiration* followed by a *forced voluntary expiration.** These respiratory movements are continued for several minutes, but upon the least fatigue the stop-cock is closed, the patient removes the tube from the mouth, and breathes the rarefied air of the Cabinet until ready for another application. The treatment varies in duration from ten to thirty minutes, and is repeated either daily or at intervals of two or three days, the number of applications varying, the greatest number being 105—a case of rapid consumption, which recovered.

*In *ordinary* breathing, on the contrary, the act of inspiration is voluntary, *i. e.*, accomplished by more or less effort, while expiration is involuntary and passive, *i. e.*, a simple elastic contraction of the chest.

Value of the Treatment. — *The peculiar value of this treatment lies in the combination of the medicated spray with the increased strength of the respiratory movements.* A much fuller expansion of the chest is produced than is possible by an ordinary full inspiration, and at the same time the medicated spray being carried to *the very deepest and most remote portions of the lungs* with much greater force than by a natural inspiration, *is deposited upon the bronchial tubes,* even the smallest of them, *as well as in cavities and other diseased and inflamed portions* of the lungs.

The materials, moreover, which have been found most useful as antiseptic inhalations are not mere gases which are mingled with the inspired air and then pass out with it, but they are vapors of soluble bodies* which are deposited upon lung tissue. *Upon every moist bronchial tube, upon the walls of cavities and around, if not within, the areas of inflammation, the inhaled vapor is condensed to render the soil barren for germ growth,* to impregnate lung cells and bronchial mucous membranes with antiseptic material, which we know renders them less fitted for the *cultivation* of germs, so that finally we may be able to supply the vital activity which is lacking in those parts, and prevent the progress of disease.

EFFECT UPON CHEST CAPACITY.

At the same time we must not neglect to consider the beneficial effects of removing the external pressure of the atmosphere from the chest walls. The active and passive movements of the respiratory act being reversed, the breathing takes place not merely with the *tidal* volume of air (which is carried by ordinary inspiration only to the larger bronchial tubes, reaching the lung-cells in obedience simply to the law of the diffusion of gases), but also with the much larger volume of *complemental* air.† When properly conducted, therefore, a gymnastic action is produced, which expands and strengthens not only the diseased, but even the healthy, although undeveloped, chest, and which is beneficial from a mere hygienic standpoint. Indeed, careful tests before and after a course of treatment, have demonstrated an increase in the capacity of the chest of from twenty-five to one hundred per cent., and a corresponding development both of chest measurements and of chest expansion.

I have called this increased action of the chest gymnastic, but I do not mean that its beneficial effects are solely seen in the development of the muscles of the chest walls. On the contrary, it is the mucous membrane of the bronchial tubes and of the lung-cells that is strengthened and invigorated, while the lung-cells themselves are expanded and stimulated into a more vigorous and healthful activity.

EFFECT UPON COUGH AND EXPECTORATION.

The effect of the inhalations upon the cough and expectoration depends not only upon the progress that disease has made upon the lungs, but also upon the choice of remedies that are to be inhaled. In nearly every case, however, there has been noticed a marked decrease of both of these symptoms, although at first the expectoration may be somewhat increased. This increase is due to the fact that the removal of the external pressure has caused such an expansion of air in the bronchial tubes as forcibly to expel secretions, which may have so accumulated as seriously to impede the proper expansion of the air-cells.

EFFECT UPON HEMORRHAGE.

Finally, the influence of this treatment upon the circulation is very instructive and worthy of the most careful study. In brief, we may say, without entering into a scientific discussion of the subject, that the blood-pressure in the large blood-vessels is increased, but that the pressure in the small blood-vessels or capillaries of the lung cells and bronchial tubes is so far decreased as *actually to decrease the liability to pulmonary or bronchial hemorrhage, and in some cases even to arrest the hemorrhage during the attack.* This modification of the capillary blood-pressure can scarcely be other than beneficial to any inflammatory process in the lung tissue.

SUMMARY OF EFFECTS.

To sum up briefly the effects of this treatment in the Cabinet: *The fever, cough, expectoration, and tendency to hemorrhage are all decreased, while the appetite, strength, weight, and vigor of voice, are increased to a marked degree. So, too, there is a disposition to a more restful and refreshing sleep.*

An increased amount of oxygen is absorbed by the system, giving better blood, firmer tone to the heart, and greater strength and regularity to the circulation. The withdrawal of atmospheric pressure from the surface of the body promotes also the healthy secretions

*The principal agents thus far used in the spray have been the bichloride of mercury, iodine, carbolic acid, phenyl, oil of pine needles, benzoin and other balsams, creasote, and camphor.

†The *tidal* or *breathing volume* of air is that air which passes in and out of the lungs with each ordiuary breath. It amounts only to about twenty-five cubic inches. The *complemental* air is that amount which can be taken into the lungs by forced breathing *in addition* to the *tidal* volume, and amounts to about 100 cubic inches

from the skin, and reduces blood pressure in the liver and kidneys. This reduction of pressure in these organs, which are so prone to diseases caused by over-distension with blood, allows them to resume their proper functional activity. *On the other hand, the unhealthy and weakening secretions, the so-called night-sweats, disappear as a rule,* owing to an increased tone and vigor in the sweat-glands.

Diseases that are benefited by this treatment.—Thus far the greatest value of this method has been in the treatment of *consumption at all stages, but especially in the early stages, acute and chronic bronchitis, asthma, emphysema, the chronic remains of whooping cough, and the consolidations resulting from an old pleurisy or pneumonia. It is useful also as a hygienic exercise, to expand a comparatively healthy but undeveloped chest.*

It cannot by any possibility interfere with any of the well-known medicinal and nutritive measures that it may be expedient to employ, and it certainly has been the means of curing pulmonary consumption, even after cavities have been formed.

To treat these various diseases successfully, an ingenious mechanism permits the operator at will either to rarefy the air within the Cabinet to a given degree, or to condense it to a given degree, or alternately to rarefy and condense it, rarefying it with the act of inhalation, and condensing it with the act of exhalation, thus causing a vigorous artificial respiration.

Although the cases that have been reported thus far have certainly given proof of the possibilities of recovery from the most serious of lung diseases, the danger, when looking at such a history of treatment, is that inconsiderate enthusiasm may prevent one from fairly weighing evidence which must in all justness be impartially considered. It is a duty, however, which we owe to humanity, to investigate the subject carefully and without prejudice, patiently developing what is good in the method, and gradually learning what is its proper place in the healing art.

194 *West Brookline street, Boston, Mass.*

Hospital Reports.

PENNSYLVANIA HOSPITAL.

Service of Dr. James H. Hutchinson.

Chronic Cirrhotic Kidney, with Acute Catarrhal Nephritis.

This colored woman, 47 years old, has been in the house before, in very much the same condition that we now find her. This last time she was admitted January 19. When we inquire into her family history we learn that her father died of "gravel," that she has had all the usual diseases of childhood, and later on typhoid fever, variola, and rheumatism. She has had several children, and her menopause occurred suddenly about one year ago. Some time ago she had well marked chills and fever. About six months ago she was admitted to the hospital, complaining of great dyspnœa and orthopnœa, vertigo, œdema of the face and limbs, and she was passing very large quantities of urine. After a while she spat up some blood. At that time the cardiac action was very rapid, and there was an irregular, harsh, presystolic murmur. The urine had a specific gravity of 1025, and contained albumen in abundance, bloody and granular casts. After a course of treatment, which consisted largely of digitalis, she was very much improved and was discharged. Now she is back again, in very much the same condition. Her urine has a specific gravity of 1009; there is no sugar, but we find albumen in abundance, as well as hyaline, bloody, and granular casts. She has great œdema of the face, especially of the eyelids, the abdomen is much distended, and not only pits on pressure, but there is also fluctuation, which indicates to us that we have not only œdema of the cellular tissue, but effusion within the cavity of the abdomen as well. As additional evidence of this effusion, you note how the umbilicus protrudes. The whole body is œdematous. The apex beat of the heart is somewhat displaced to the left, being felt without the line of the nipple. There is a distinct increase of the area of dullness and a distinct musical systolic murmur, heard over the whole area, which indicates mitral insufficiency; and I am not quite sure that I do not hear a murmur over the aortic region, indicating aortic constriction, but it may be that this is a conducted murmur. Sibilant and sonorous rales are heard all over the chest; there is marked œdema of the lungs, which adds materially to the gravity of the case. Now the rheumatism may account for the cardiac trouble, or it may be due to the kidney disease, for we know that this combination is not uncommon. Since the case has not been observed closely, and we are consequently unable to procure a very accurate history, it is hard to say positively what is the exact relationship between the different diseased conditions. The woman has been intemperate; there is more or less œdema of every organ; the condition is a

very critical one, and calls for prompt treatment. The long continuance of the disease, the presence of granular cells, the fact that at times the amount of albumen is very slight, would incline us to the view that the woman has for a foundation a cirrhotic condition of the kidneys, a chronic parenchymatous nephritis. The presence of hyaline casts merely tells us that the disease is chronic, but does not aid us to differentiate the type, as they are common to all chronic forms. Dropsy is not usually marked in cirrhotic kidney, but is a very usual accompaniment of acute catarrhal nephritis; hence the explanation of this case would seem to be (bearing in mind that the woman was here six months ago in a similar condition) that she had and now has an acute attack of catarrhal nephritis superadded to a chronic cirrhotic condition of the kidneys.

The strongest indication in this case is to promptly relieve the œdema. If it could be accomplished by digitalis it would be well, for we would then have, with the diuretic action, a good cardiac tonic; but where the condition is so urgent, I fear that digitalis would not be satisfactory, for its action would be too slow. In this case we are called upon to use hydragogue cathartics; we can use compound jalap pow. der, in drachm doses, or elaterium. In addition to these drugs, we can also use digitalis, more especially for its action on the heart, and Basham's mixture. These measures will very likely relieve the woman for the present, but we cannot expect to do any permanent good where there is evidently so much disease. The chances are in favor of relieving the urgent symptoms, because they have been relieved before when she was in an equally critical condition. We might accomplish much in these cases by a full sweat with pilocarpine, but elaterium is more certain. Hot air or hot vapor-baths and dry cups over the loins are useful; but whatever you do, you must do promptly.

Mitral Regurgitation and Aortic Obstruction.

This woman has been in the hospital several times before. She is twenty-eight years old, and was admitted for the last time on the fifth of January. Her father died of phthisis, but all the other members of her family are living and well. She commenced to menstruate at fifteen, and it was regular and easy for one year, ever since which time she has had much pain at every period. At twelve years of age she had rheumatism, after which she suffered from heart disease and dropsy. Four years ago she was admitted to the hospital suffering from these conditions, and for the same troubles was readmitted eighteen months ago; on both occasions she was very much benefited by treatment. Now we find a systolic mitral murmur, the liver is enlarged, there are rales over the chest, the urine has a specific gravity of 1020, there is albumen, bile, and pus discovered in it. The eyes are very prominent, as is also slightly the thyroid gland; which symptoms, taken in connection with the cardiac disease, at first somewhat inclined me to the belief that we had to do with a case of exophthalmic goitre. On January 9 casts were found in the urine, while on the 12th they were absent. This was not enough to justify the suspicion of exophthalmic goitre. A violently-acting heart is not necessarily due to valvular disease; it is the cause here, but we have not the constant rapidity, independent of exertion, that we find in goitre. The area of cardiac dullness is increased. The apex beat is displaced to the left, probably due to a contraction of this side caused by a pleurisy. There is a distinct, but not loud systolic murmur. Remember that the loudness of the murmur does not indicate the extent of the disease; we may have a very loud murmur due simply to anæmia, when there is really no disease at all. Again, I have frequently noted, as in this case, that the murmur may be very feeble when the patient is weak and exhausted, and grow louder as she increases in strength. This woman has improved very much since she came in. If you take the apex of the heart as a centre and draw a circle with a diameter of one inch, you will have what is known as the mitral area. This murmur, or a murmur, can also be heard posteriorly on the right side of the heart, but it differs from the other in character and intensity. Remember that a conducted murmur will always have the same characters as the original murmur; therefore, when they differ in character, we know that we have two lesions. Here, then, in this case, we have mitral regurgitation and aortic obstruction. A curious and valuable point to be observed about this case, as we will find it in others, is that while the woman maintains her general health in fair condition, she is able to tolerate the heart disease with but little inconvenience, but when she takes cold, or in way her equilibrium becomes deranged, the cardiac mischief makes itself unpleasantly prominent. When she has a few days' rest she always recuperates. The mitral murmur is heard most distinctly at the inferior angle of

the scapula, more so than in front; this is a diagnostic sign in mitral disease. In many cases it is very difficult, even for the best diagnosticians, to differentiate a mitral from an aortic murmur; but when we hear it posteriorly, at the inferior angle of the scapula, we know that it is mitral. It is not, however, usual to hear it *more* distinctly posteriorly, but I think it can be accounted for in this case by the fact that the pleurisy has forced the heart backwards, closer to the posterior wall of the chest.

I will say here a word in reference to the prpriety of paracentesis thoracis for pleuritic effusion, about which there is considerable diversity of opinion. I would consider that it would be proper to resort to this operation when the effusion threatens suffocation, when it is surely purulent, or when diuretics and hydragogue cathartics have failed to remove it. If in all cases we tap simply because there is an effusion, we will usually do more harm than good.

You will often see cases similar to the one before you, and it is therefore important that you should take away with you a clear idea of it. Here we have a diseased heart, superadded to which is an exhausted heart. Of course, the treatment is plain; cardiac tonics are called for, and there is none better than digitalis, especially if there be an effusion. I would give a dessertspoonful of the infusion every three or four hours, where the patient could be watched, though, if preferred, the tincture or the powder could be used. Diuretics would also be indicated if there were effusion, and there is none better than Basham's mixture, which combines diuretic and tonic properties. If there is much fever, quinine would be indicated, and if debility, cod-liver oil. The diet should consist of milk and semi-fluids. But I will enunciate as a golden and imperative rule, that all drugs will be absolutely useless unless you bear in mind the great importance of rest. If I were in this condition myself, I would rather remain in bed with no drugs, than to have all the most approved therapeutic resources and walk about as usual.

Psoriasis.

The student so seldom sees skin diseases that I bring this case before you. The woman has a fractured arm, for which she is being treated in the surgical wards. The eruption, as you see, is squamous, and the scales are very fine. This disease seems to have a peculiar affinity for the elbows and knees. In some places the eruption is only in points, while in others it is in large patches. From these appearances the disease has a variety of names: *Psoriasis punctata, p. guttata, p. umbilaris, p. diffusa,* and because some cases obstinately resist treatment, *p. inveterata.* But in all these forms the disease is the same, and calls for the same treatment. It is a characteristic of this disease that it usually attacks those who are otherwise in good health, which is a point to distingush it from eczema, that usually attacks those who are out of health. It is very common to find this eruption about the junction of the hair and scalp. There is no drug better than Fowler's solution in these cases. Hebra prefers arsenious acid, in doses of $\frac{1}{60}$ of a grain, gradually increased up to the point of tolerance; but I think you will derive very satisfactory results from Fowler's solution, commencing with five-drop doses. If there is constipation or any functional derangement, it must be corrected. In this disease arsenic is almost as much of a specific as quinine in malaria and iodide of potassium in syphilis. Externally, we should use an ointment of chrysophanic acid, five or ten grains to an ounce. This will sometimes cause irritation, and if the fingers used to scratch are put in the eyes, we may have trouble; but there is not this objection to tar ointment, with a little alum. Oxide of zinc, yellow oxide of mercury, or nitrate of mercury ointments may be used. When very diffuse, we may use baths of sulphate of soda. In many cases we will have to vary the external treatment, giving arsenic all the while. The disease generally runs in families.

Medical Societies.

CINCINNATI ACADEMY OF MEDICINE.

Meeting of December 7, 1885.
President, Samuel Nickles, M. D.
Secretary, G. A. Fackler, M. D.

Dr. J. F. Whittaker, Professor of the Theory and Practice of Medicine, Medical College of Ohio, spoke on the subject of

Bright's Disease.

We scarcely have any idea of the results of the researches of Richard Bright, unless we transform ourselves back to the first quarter of this century. Then dropsy was considered a separate disease. The text-books contained chapters on dropsy. This was, it is true, known to sometimes depend on diseases of the heart and liver. Albumen was found in the urine. Bright displayed

the first anatomical specimen of kidney disease. Bright only described one form of the disease, but the subject was immediately taken in hand by English and French investigators. Frerich, in 1851, illuminated the field more than any one since Bright. Frerich came to believe that Bright's disease commenced as acute, then assumed a chronic form, then later became the shrunken or cirrhotic kidney. Eminent English observers denied this. Bright's disease, they said, commenced as Bright's disease. Partels, in 1871, said it should be called Bright's disease, acute, chronic, cirrhotic, and amyloid. But we cannot always distinguish between these. We generally have the chronic and the amyloid together. Bright's disease seems to be more and more frequent. It is the business of the kidney to carry off refuse matter, whether it be pathological or physiological. Carrying off diseased matter from the body, it becomes diseased. It is attacked by chemical and toxic agents. Diseases also extend from the urethra and bladder. Many a case of kidney disease has its origin in a case of gonorrhœa. I will confine myself chiefly to the theoretical part, and leave the practical to those who may take a part in the discussion. We use to-day the same tests as did Bright. Many others have been invented, but heat still remains the best. Of course, every student knows that the urine must be acid; if not acid, add acetic acid to make it so, otherwise carbonic acid will precipitate the phosphates.

The question is, why does albumen appear in the urine? There have been many theories. It is now definitely known that albumen appears in the urine from a diseased condition of the epithelial coating of the Malphigian coils. The albumen appears transitory in the urine. What is the source of the albumen? It has been demonstrated as an absolute fact that the cause of albumen appearing in the urine is a diseased epithelial coating of the Malphigian coil. If you keep the blood from the kidney mechanically, a change occurs in the epithelial cells, and albumen occurs in the urine. Senator says that the albumen sometimes transudes through the secondary capillaries lower down. Experiments have been made of cutting the kidney from the body and boiling it, and the coagulated albumen is found in the Malphigian tufts; the lighter the pressure the more albumen transudes, and the greater the pressure the less albumen. We estimate the amount of albumen present. This is never more than seven per cent., generally 5.1 per cent., maybe 2.3 per cent. Many practitioners look at the albumen coagulated in the test tube, and say thirty-four, forty, fifty per cent. is albumen. This is not the case. So far as the kidneys themselves appear, they show no lesions. One of the most prominent effects of kidney disease is dropsy. Many explanations are given to account for the dropsy. It has been said, the less urine the more dropsy, and vice versa. Cohnheim thinks it due to a diseased condition of the blood-vessels. This view is, however, not very widely received. Casts give us undoubted evidence of disease. Albumen does not prove positively: casts do. It is a familiar fact that these casts are hyaline—plain, simple, and translucent, composed of albumen. They take the size and shape of the tubes, are never more than one millimètre in length. The bulk of testimony goes to show that the casts are transuded albumen covered externally by cells and debris. The casts show the stage of the disease. Uremia is at all times the most important symptom of Bright's disease. When the kidney ceases its function all can see why water is present in the blood—not only water, but also urea. It has been a familiar experiment that extirpation of the kidney or ligature of the ureters in the lower animals produces vomiting and symptoms of uremia. Urea may be present in the blood, but is eliminated by the skin and other organs so that it does not poison the patient. In these patients the breath smells of urea, is very offensive, and can be recognized by the physician as soon as he enters the room. The French theory that the urea is transformed into carbonate of ammonia, and as such causes trouble, has been exploded. We are compelled to believe that the symptoms of uremia are caused by urea in the blood. The quantity of urea remains the same, but other matter may vary in quantity. Symptoms in the acute form are vomiting and headache. In the chronic form we have one grand mal. The patient lies unconscions, then falls into a deep sleep and awakens to have another. Amaurosis sometimes follows the attack. The pupils react perfectly to the light; the lesions are not in the eye, but central in character. Implications of the nerves and lungs may follow. We may have the asthma uremica. This is most distressing. It lasts weeks and months, and in one case I knew lasted a year. May have pulmonary œdema, which is generally the last symptom before death occurs. Renal asthma is always fatal. Hypertrophy of the heart, usually the left ventricle, occurs. It is present not only in acute perenchymatous

nephritis, but also in the chronic. Perhaps the most obscure point which yet remains is renal pathology. It is only when obscure points do remain that they are investigated with any interest.

Dr. David De Beck said that no general disease came so often before the specialist, and in no disease has the general practitioner received so much aid from the specialist, as the subject under consideration to-night. We have albuminuric retinitis, œdema, hemorrhage implicating the ocular end of the nerve, more particularly involving atrophy. The capillaries become sclerotic, and on section remain open. We have changes on the part of the nerve fibres, neuroglia, varicose thickenings which come crowded with oil drops. More particularly have we changes in the fibres of Müller. These become thickened and exceedingly refractive and sclerotic. These are important changes. In all cases of albuminaric retinitis we have the vessels more or less involved; the arteries which should be ⅔ to ¾ the size of the veins, we have reduced to ½, ¼ the size of the veins, the veins remaining about the normal thickness. We notice also the changes due to endarteritis. In this we have degenerative changes taking the lead; we have fatty patches in the retina. This may be a form of papillitis, optic neuritis, or neuro-retinitis from intra-cranial causes. Of greatest importance to the general practitioner is how often do we see these cases. Wagner saw 12 per cent., Frerichs 15 per cent., La Courrier 20 to 25 per cent., Legner 28 per cent., of chronic kidney cases. I myself, out of 22 cases, have seen 6. The general practitioner does not appreciate the finer changes, and his per cent. is low. The specialist appreciates these finer changes, and his per cent. is high. The proper per cent. is probably 20 to 25. It has been proposed by a prominent oculist, that in certain cases of albuminaric retinitis, premature labor be induced. In one case this has been advised and done.

Dr. W. W. Seely said that the previous speaker had omitted one or two clinical points of interest from an ocular standpoint in regard to these eye pictures. It is generally known that this disease of the fundus oculi may improve and the kidney disease grow worse; and *vice versa*, the trouble in the fundus oculi may remain the same, and the vision may markedly improve. It is a curious fact that this disease in the bottom of the eye has been seen in cases of albuminuria due to malaria. I have seen at least one case. The connection between the disease and the appearance in the fundus oculi is very mysterious. I do not think that the attention of even the general practitioner has been sufficiently directed to these manifestations of malaria. I called attention several years ago to a serous effusion into the vitreous humor due to malaria. It had been diagnosed by another gentleman as hemorrhagic effusion. I have seen typical cases of retinitis due to kidney trouble, which in turn was due to malaria.

Dr. R. B. Davey failed to see the connection of the eye trouble with the general disease. A complete study of the eye enables us to advance very little in our treatment of the disease. Nothing has been said concerning the changes in the blood. One very important point is to measure the amount of albumen in the urine. The doctor then reported a case.

Dr. J. H. Taite spoke of the ocular appearance in chronic cases. In 23 cases of puerperal eclampsia he found the eye sensibly affected in 3. In 2 cases one eye alone was affected. In one the vision was almost completely lost for several days. Both cases made a complete recovery. In one case I know of, the patient, a young woman, almost entirely lost the vision of both eyes. She is perfectly healthy otherwise. Many practitioners say we cannot have Bright's disease, acute form, unless we have structural change in the kidney. I think this is erroneous. I have seen the urine return to a normal condition in a few days after puerperal eclampsia. No woman should be allowed to have eclampsia. Every practitioner should make it a rule to visit his patients as soon as engaged to attend them in labor, and carefully examine the urine. If no albumen is found he should examine her again at intervals to be sure there is none present. I have never seen eclampsia recur repeatedly in the same woman. It occurs almost invariably with the first child, with twins, or with women suffering from chronic Bright's disease. In the latter case the induction of premature labor might be considered Even in this case, preventive medicine might be employed successfully.

Dr. C. O. Wright thought it had been the experience of every man to have cases of puerperal eclampsia in which no albumen could be found.

Dr. Taite supposed that in many cases kidney diseases in women is confined to one kidney. We can easily see why this is, from the right oblique pressure of the pregnant womb. Its function may be almost entirely if not entirely stopped. Hence no albumen

in the urine. We have had gentlemen here to-night to tell us of what has been said or done in France or Germany, but few who tell us what they have seen or experienced or reflected. Let us have a little American thought, experience, and independence.

THE BALTIMORE ACADEMY OF MEDICINE.

Stated meeting held January 6, 1886.

Dr. J. J. Chisolm presented the following notes on

A Piece of Iris Living in the Vitreous Chamber.

G. T. S., æt. 59, six months ago, falling down a railroad embankment, received an injury to the right eye. When seen by his family physician six hours after the accident, he was suffering intensely. The lids had already become very much swollen. Upon carefully separating them a wound was discovered at the upper edge of the cornea, from which a thick splinter of wood was protruding. The removal of this bit of wood was accompanied by a bloody aqueous discharges leaving, however, so much blood in the anterior chamber as to conceal the amount of injury done to the eye contents.

The treatment pursued was rest, cold applications, and the internal administration of anodynes. As the swelling subsided and the blood was absorbed, it was found that sight had been so materially impaired as to leave only perception of light. In time, however, the vision slowly improved, till after three months large objects could be again recognized. In the meantime, the left good eye indicated some growing impairment of vision for distant objects, and the spectacles heretofore worn with comfort, no longer permitted easy reading.

This growing defect in vision in the good eye was supposed to be a sign of sympathetic complications, and for this reason the patient was sent to me from his distant home for surgical treatment.

I found the left good eye hyperopic, v $\frac{15}{40}$ with a + $\frac{1}{20}$, his distant vision became $\frac{15}{12}$ even above normal, and he read brilliant type readily with a + $\frac{1}{8}$ lens. His spectacles were + $\frac{1}{12}$, which accounted for his discomfort. At first sight the injured right eye presented every appearance of a successful cataract extirpation.

The iridectomy was large, well shaped, centrally located, and clean to the very ciliary border. The well formed artificial pupil was black, with traces of capsular deposit as is seen after successful cataract operations. He could detect large objects and count fingers readily at four feet, the distance at which I was sitting from him.

In putting a + $\frac{1}{2}$ lens before his injured eye I was surprised to find v $\frac{15}{6}$, and with a + $\frac{1}{2}$ of $\frac{1}{8}$ lens he could make out words in brilliant type.

He complained of something moving about in his eye, which seemed to wave before his sight. By oblique illumination I could see a whitish body in the vitreous. With ophthalmoscopic illumination the examination showed a healthy fundus and clear vitreous, so as to give a perfect retinal picture.

Hanging from the roof of the vitreous chamber, at some little distance behind the thin, partial capsular film, was a flap of membrane apparently one line wide and two lines in length. It was rectangular in shape and of a yellowish white color. Upon its anterior surface could be clearly traced a vessel of some size, which starting at the base ran down through the whole length of the membrane, to the free extremity of the flap.

This piece of living tissue moved to and fro with the movements of the eyeball. This floating membrane in the vitreous, adhering to the upper anterior edge of the choroid, could be nothing else than the missing piece of iris.

The splinter of wood in entering the eye through the upper scleral border of the cornea, had torn the iris in two places from the pupillary border to the ciliary region, in this way punching a piece out of it. This detached bit of iris had been pushed back into the vitreous chamber, carrying with it a portion of its ciliary body. It remained adherent to the ciliary body at one point by a broad base.

The lens must have been injured also at the time of the accident, because through its torn capsule the aqueous humor had been brought in contact with it, to its complete disappearance by absorption.

As there was a broad base to the flap, with ample nourishing blood-vessels, the piece of displaced iris had continued to live. Although it had been bleached and all trace of pigment had disappeared from it, it was yet thick enough to show us translucency. Under ophthalmoscopic examination it showed boldly as a whitish yellow membrane against the healthy red reflex of the fundus. Curiously, the passage made by the splinter into the vitreous chamber had not been invaded by inflammatory deposits. The hyaline structures had taken on no pathological changes and therefore, excellent vision

had been retained to this curiously-injured eye.

Dr. J. Edwin Michael then related

An Unusual Case of Gunshot Wound.

On Christmas night last, about 9 o'clock, he was called to see a large, stout, well-built German, a saloon-keeper by occupation, who had received a pistol wound while engaged in quelling a disturbance in his establishment.

The ball came from a pistol of the "bull dog" pattern, 38-calibre, and was shot from a distance of 12 to 14 feet in front of and a little to the patient's right.

Upon examining the patient it was seen that the point of entrance of the ball was at a spot almost if not directly over the apex beat of the heart.

Later measurements showed the exact location of the perforation to be 3 inches to the left of median line, 1½ inches to right of left nipple line, and ¾ of an inch below a line drawn transversely through the nipple. There was, of course, no probing. The patient was in a condition of extreme shock; stimulants were given, and after a short while consciousness returned. Upon examination by physical signs, wound of the lower lobe of the left lung, and hemorrhage into the pleural cavity of that side, was diagnosed. It was also probable that there was a co-existing pneumothorax of small degree. About eleven o'clock, two hours after the accident, the patient began to complain of much general pain. He became quiet after a hypodermic of morphia and atropia, and continued comparatively easy for a time, when pain again began to be felt, which was again arrested by a repetition of the hypodermic injection.

At the end of twenty hours from the time of the accident the patient died.

The autopsy showed that the bullet had passed through the fifth rib, near its junction with the cartilage, through the pericardium, through the left ventricle, making in its passage an opening at its point of entrance and another at its point of exit, which two openings were connected by a furrow in the ventricular wall, ploughed up by the ball in its passage through the heart. After leaving the heart it had penetrated and passed through the lower lobe of the left lung, fractured the eleventh rib, and imbedded itself in the soft tissues of the back about two inches to the left of the spinal column.

The doctor thought it remarkable that such a ball should have passed through the heart without causing instant death. He had seen one other case in which the heart had been perforated by a 22-calibre ball. In this case, death was practically instantaneous.

In the case under consideration the wound was obliquely through the heart in such a way as to make valve-like openings in the ventricular walls, similar to the openings in the bladder through which the ureters pass —this form of perforation, he thought, prevented what would have been rapid hemorrhage into the pericardium, had the openings been made in a line perpendicular to the plane at the point of entrance of the ball.

During life there was considerable hemorrhage, but he did not think that it came directly from the heart, but was forced from the pleural cavity by the movements of the lung in respiration. The dressing consisted of cloths saturated in bichloride solution.

Dr. J. J. Chisolm said of course we had all heard of the rare case of perforation of the heart and retention of the bullet within its cavity until found there after death. He had seen cases of injury to the heart by bullets, but none of them had lived so long as 20 hours.

Dr. A. B. Arnold next read a most exhaustive paper on

Circumcision,

in which he treated the subject from a moral as well as from a historical and surgical standpoint.

He protests against the practice, not only because he considers it detrimental in robbing the glans of its natural protective covering and thus exposing to irritation those very sensitive Pacinian bodies about the corona. The result of this exposure and consequent irritation, he thought led to habits of masturbation. From the religious point of view he considered it an entirely erroneous idea that a child born of a Hebrew mother was not a Hebrew until circumcision had been performed. It has recently been decided, he said, that a Jew cannot be excluded from fellowship in a Jewish congregation because of the presence of a foreskin.

He described in detail the methods of operating pursued by physicians in the different countries, both civilized and barbarous.

In answer to the question, "Had any hereditary shortening of the prepuce been observed in Hebrew children as a class?" he said he had noticed nothing different in the formation of the foreskin in them from that of other children.

Dr. James Carey Thomas thanked Dr. Arnold for the pleasure he had had in listening to a subject so ably treated.

Dr. Stanley Hall, who was present, was invited to make some remarks upon the subject. He said, after Dr. Arnold's paper, there was left but little for him to say—he had always been more or less in the dark on the subject, but had never had such a flood of light given him upon the topic, as had been afforded by Dr. Arnold's treatise. Some few years since he was in Vienna during a discussion upon the subject, and it was there decided that circumcision was beneficial in lessening the erethric habit, and that it was anticipating what nature would herself do if left to her own course.

Dr. John R. Uhler said that possibly circumcision had its effect upon procreation by lessening the amount of surface tissue to be filled with blood, and thus allowing a greater amount of blood to be supplied to the centre of the organ. This would, he thought, have the effect of increasing the temperature of the body of the organ. Again, he thought that possibly the reason for its having been first practiced in Eastern countries, and especially in the tropics, was that the dry, sandy atmosphere so potent in causing ophthalmia might have such an irritating effect by causing a gritty deposit beneath the foreskin.

Dr. J. Edwin Michael thanked Dr. Arnold for his paper. He had some time since read an article on the subject from a surgical standpoint. In his experience he had been frequently called upon to remove the prepuce because of its inconvenience. As to affecting the sensitiveness and irritability of the glans, he did not see that the operation made any difference whatever, for how very often do we see men with naturally-exposed glans from an abnormally short prepuce. They present no greater degree of sensitiveness. He thought, with some eminent authorities, that the sensitiveness of the glans is increased by circumcision of long prepuce, the irritability decreased.

Dr. A. B. Arnold thinks too much importance has been attached to the part played by the organ in originating venereal desires. The brain is the centre from which impulses arise. He thinks that when sexual impulses are observed in very young children, as is not rarely the case, that here it is not the brain, but some undue irritation to the corona of the glans. It is to protect against the possibility of such irritation that he advocates leaving the natural covering, the prepuce, just as nature has made it.

Dr. John N. McKenzie exhibited a portion of a growth coughed up from the larynx. The patient had suffered from dyspnœa caused by a growth almost completely filling the laryngeal cavity. Laryngoscopic examination revealed the growth to be composed of an oval mass composed of two lobes, divided by a shallow sulcus of what appeared to be fibrous tissue. The throat was so very irritable that local anæsthesia by the cocaine spray was necessary before any manipulation could be satisfactorily carried out. He removed a portion of the growth with the laryngeal forceps. This gave rise to such a degree of irritation that he was obliged to desist and postpone any further attempt at removal until the following day. On the following day dyspnœa was so great that tracheotomy became necessary. On the day succeeding she was attacked with a spell of coughing, and threw off the portion of papillomatous growth here exhibited. Another attempt will be made to remove the growth with the forceps. Another case that he was examining for hoarseness revealed the presence of complete double uvula.

NEW YORK ACADEMY OF MEDICINE.

Annual meeting, January 7, 1886. The President, A. Jacobi, M. D., in the chair.

Contagious Ophthalmia in Public Institutions.

Dr. R. H. Derby, of the committee appointed to make investigations regarding contagious ophthalmia in the asylums and residential schools of New York, said that on the whole the condition of the asylums was not better than at the time of the preliminary report in June last. He read the detailed report regarding three institutions in the city into which children were received to the number of about one thousand, and nearly three hundred of the entire number had contagious eye disease. The ventilation, sewage, and general sanitary condition, was not such as it should be. The committee recommended an enactment by the Legislature providing for a physician attache to each institution receiving children, who should be required to examine the inmates and those about to be admitted with regard to any contagious or infectious disease, particularly eye or skin disease; and it should be compulsory on the authorities of the institution to provide suitable quarantine for all such cases. The minimum of cubic air space for each inmate should be six hundred cubic feet. Failure to comply with these regulations should be considered a misdemeanor.

The annual reports of officers and committees were handed in. It appeared that the academy was out of debt, and the treasury contained over eight hundred dollars. The total number of volumes in the library, including pamphlets and journals, was twenty-seven thousand.

Among other changes in the constitution and by-laws, it was provided that cases relating to ethics should be referred to the council, and the Committee on Ethics was abolished. The Committee on Education was also abolished.

The result of the election was as follows:

Vice-President.—Dr. H. D. Noyes.

Treasurer.—Dr. Cushman.

Trustee.—Dr. Geo. A. Peters.

Committee on Admission.—Dr. Emerson.

Recording Secretary.—Dr. Jacobus.

Corresponding Secretary.—Dr. Wesley M. Carpenter.

Committee on Library.—Dr. Katzenbach and Dr. Johnson.

Delegates to the State Medical Society.—Drs. W. R. Birdsall, R. W. Amidon, A. S. Hunter, Bullard, and Bacon.

Adjournment.

Editorial Department.

Periscope.

On a Febrile Disorder Communicated from Calves, and Accompanied by an Eczematous Eruption.

Dr. T. Frederick Pearse thus writes in the *Brit. Med. Jour.*, August 8:

A case having the above characteristics has lately been under my care, and I have particulars of two other cases. Similar eczematous patches, but of a very mild form compared to that of my case, are said to be frequent on the hands, arms, and face of those having the handling of these diseased calves. The eruption on the animal is called by my patient (a castrator) "ringworm;" but there are certainly not the same acuteness of symptoms or discharge in the animal as in the disease propagated to the human subject. It is more than doubtful whether the disease in the calves is of the nature of "ringworm" at all. I have not had the opportunity of seeing the disease in calves.

The general symptoms, which came on somewhat acutely, were heightened temperature, varying from 99.5° to nearly 102°, with a frequent but weak pulse, moist but coated tongue, foul breath, a feeling of malaise, and general weakness. These have lasted for nearly a month, though they have somewhat improved during the latter half. My patient says that his brother suffered for six weeks during last winter in exactly the same way as himself.

The eruption consists of inflamed patches, somewhat like incipient boils, which burst, but, instead of discharging pus, pour out a very glutinous serous fluid, which quickly dries and forms a hard scab. There is considerable thickening and hardness of the skin around, and some slight enlargement of the lymphatic glands. The eruption is situated all round the chin, and under the jaws on both sides, with isolated patches on the forehead, eyebrows, and cheek. All round the lower margin of the face there is one continuous discharging surface. As soon as the scabs are removed, fresh discharge hardens and forms a scab again.

A question may, perhaps, be raised as to diagnosis. My patient was in perfect health before this attack, and never had an eruption of any kind about him before. It was treated by my *locum tenens*, in its early stages, for eczema, but apparently without the slightest benefit. The surface is hardly extensive enough or associated with sufficient inflammatory appearances, to account for the decided general symptoms. Again, the thickening around the base of the eruption is too hard for acute eczema, and there is not the same swelling of the skin. There is not the same pain or soreness, either, as in acute eczema. I have prescribed quinine (three or four grains), with full doses (thirty minims) of nitro-hydrochloric acid; and, locally, I tried, first, dusting with iodoform-powder; but, finding apparently little benefit from this, it was changed for oleate of mercury, with oleate of zinc as an ointment. The sores have considerably improved, and the man's general condition is nearly restored.

The Influence of Diet on Cancer.

Dr. H. Percy Dunn thus writes to the *Brit. Med. Jour.*, 1885:

That diet has some influence upon the production of cancer is now generally believed. Since Moore first drew attention to the matter, in 1865, whilst discussing the question of the increase of cancerous disease, confirmatory evidence—partly comparative, partly direct—has been produced by several observers. But, in the case of the human subject, an inquiry intended to elicit evidence upon this point is open to certain objections if it is simply limited to the statement of the habits of a person in the matter of eating. For, undeniably, a "large eater" and a "small eater" are only relative terms. Women are universally small eaters; and, whilst full-bloodedness amongst them is quite the exception, they do not generally exhibit an underfed condition. Ladies, as is well known, are averse to eating much, because they are averse to placing themselves in the position of imperiling their "figures," by growing stout. In the case of men, a different state of things prevails. Men often eat largely without necessarily manifesting any trace of their eating habits. Their business occupations enable them to throw off any ulterior effects which full living might be supposed to induce. Consequently, although eating largely, they cannot be said either to eat to excess or to suffer from the food they consume. But a small-eating woman, by leading a life of ease and indolence, might suffer as much from the penalty of good living as a man who ate to excess. Still, inasmuch as it is impossible to assert that food and feeding occupies more than a subordinate position in the category of mundane attractions made accessible for women by nature, it is conceivable that diet has less opportunity of influencing the production of cancer in women than in men. Now, if the terms "large eater" and "small eater" are only relative, as they obviously must be, how can the question of diet in this relation be determined? By using the term plethoric, which is descriptive of a condition exhibited or not by the patient at the time of examination. If plethoric, then the diet, whatever its nature, has been in excess of the person's requirements. If not plethoric, the patient could scarcely be accused of free living, even although the presumption would be in this direction, when further inquiry elicited the fact that good living was the rule. There is little known as yet of the connection between diet and cancer; but, as a matter of opinion, I am disposed to believe that the influence of diet upon cancerous disease is chiefly centred about those persons whose practice throughout life has been to live freely, whose plethora has always been a positive quantity, and whose cancer becomes developed in one of those organs immediately concerned in actively disposing of the surcharge of food ingested.

A Suggestion on the Proper Alternation of Rest with Effort, as Essential to Health and Strength.

Dr. Jacob L. Williams thus writes in the *Jour. American Med. Ass.*, 1885:

In the early part of my professional pupilage, I heard a suggestion from the venerable Dr. John C. Warren, long since deceased, to this effect. He said: "When engaged in a long surgical operation of half an hour or more in duration, the eyes will sometimes become fatigued, and it will be difficult and unsafe to continue the operation with them in that condition. It is better, under such circumstances, to raise the eyes and let them rest upon some object in a distant part of the room, or, if you can leave the operation, step to the window and look out for a minute or two; you will then return with the eyes refreshed, and can see as well as ever." And more recently, one of the most eminent of American oculists has written that "one great cause of injury to vision is the *continuous* application of the eyes to book or work *after* they have become fatigued." This mention is made because the ideas therein contained represent a principle which holds good in the use of any faculty.

There is a very common belief that mere "exercise strengthens," without the recognition of any other element as necessary to that end. And so some seem to think that the more and longer they can exert their faculties, the stronger they must be. As a result, we see fatigue carried to exhaustion, which is another name for weakening or debility.

Instances are common in various occupations and ages of individuals. The youth is too often crowded with study continuously through the day and perhaps part of the night, till the mental process becomes actually debilitated, sometimes permanently. The business or professional man will not, or cannot, pause for rest till he finds that he positively must, and sometimes not then, but drops at his post. The ambitious rower or pedestrian continues his exercise till his strength is absolutely gone, and sometimes his constitution shattered.

In our special department, the practitioner will labor too many hours continuously during the day, and perhaps the evening, till

his nerves shake like so much loose cordage in the winds. And if he does not, as to my knowledge has occurred in one instance at least, fall dead by the chair, he finds a very long vacation needed to bring back a semblance of his former tone.

We also cannot ignore the fact that patients are too often allowed to suffer a continuance of endurance which has required days to recover from, and has sometimes been followed by more serious results. I emphasize the term *continuous* effort, because from that comes the harm when carried beyond the point of simple fatigue, on to the condition of exhaustion; that point, of course, varying in different persons, and in the same person at different times.

This rule, then, should be learned, and the earlier the better, namely: to rest, if possible, just when we are tired, and to let our patients do the same.

Contributions to Practical Surgery.

From the *Edinburgh Med. Jour.* we learn that Prof. John Chiene, in an admirable series of practical notes on every-day surgery, makes, *inter alia*, the following suggestions:

In wounds of the face, the best stitch to use is horse-hair. Unless the wound is of considerable size, no form of drainage is necessary. The best dressing is a pad of salicylic cotton-wool, or corrosive wool, fixed in position with flexible collodion.

The introduction of the sharp spoon into surgical practice has greatly simplified the treatment of lupus. In the use of the sharp spoon, special care must be taken to scrape away the raised edges of the lupoid ulcer, as it is here that the pathological change is advancing. This is best done by scraping from the sound skin toward the centre of the ulcer. After the new formation is completely removed, the best application is a powder which has been introduced into surgical practice by Dr. Lucas Championnière, of Paris. It consists of (1) light carbonate of magnesia, which has been impregnated with the vapor of eucalyptus, (2) powdered benzoine, and (3) iodoform, in equal quantities.

In persistent hemorrhage from the nasal cavity, plugging of the posterior nares should not be done until an attempt has been made to check the hemorrhage by firmly grasping the nose with the finger and thumb, so as completely to prevent any air passing through the cavity in the act of breathing. This simple means, if persistently tried, will in many cases arrest the bleeding. The hemorrhage persists because the clot, which forms at the rupture in the blood-vessel, is displaced by the air being drawn forcibly through the cavity in the attempt of the patient to clear the nostrils. If this air is prevented from passing through the cavity, the clot consolidates in position, and the hemorrhage is checked.

In a reduction of a dislocation of the lower jaw, the patient should be seated on a low stool before the surgeon. In this way the surgeon gets a sufficient leverage, standing above the patient, and the reduction of the dislocation is simplified.

In the division of a tight frænum of the tongue, when a child is tongue-tied, care must be taken not to use the scissors too freely. All that is necessary is, standing behind the patient, to nick the anterior edge of the frænum with the scissors, and to tear with the finger-nail the remainder of the band. In this way hemorrhage, which is apt to be troublesome, is prevented.

In the removal of an elongated uvula, after you have grasped the apex of the uvula, it is to be drawn forward and rendered tense before division. If it is simply grasped, and an attempt made to divide it in its normal position, it is not always an easy matter to effect the object desired. When it is rendered tense, the operation is a very simple one.

Difficulties of Diagnosis in Certain Cases of Cerebral Tumor.

Before the West Kent Medico-Chirurgical Society, January 1, Dr. Hale White read a paper on the Difficulties of Diagnosis in Certain Cases of Cerebral Tumor. The author first related particulars of a case in which no cerebral symptoms whatever were known to be present during life, but at the necropsy the presence of a tubercular mass in the cerebellum was quite accidentally discovered. Then full particulars were given of an interesting case of tumor in the frontal lobe. In this patient, for a long time, the only symptom was headache, and it was not till a short period before death that the presence of optic neuritis was discovered. The patient died suddenly without the advent of any other than these two symptoms. The next case related was one of a woman, in whom a tumor in the region of the occipital and temporo-sphenoidal lobes existed; it was about the size of a Tangerine orange, and produced no symptoms whatever that could with certainty be referred to its presence. It was concluded from these three cases that tumors might exist in the cerebellum, frontal lobes,

and occipital region, and be very difficult of diagnosis. The presence of paralysis of some of the cranial nerves did not necessarily forbid the diagnosis of the presence of a tumor in this region, for if it were of a very great size its pressure might compress the nerves at the base of the skull against the bone. Tumors in the regions just indicated have no special symptoms, such as paralysis; therefore, for their diagnosis we are entirely dependent upon the general symptoms, viz., headache and optic neuritis; vomiting occupying an intermediate position, being partly a general and partly a special symptom of tumors near or in the cerebellum. Even the combination of headache and optic neuritis did not conclusively prove the existence of a cerebral tumor, for a case was brought forward in which both of these symptoms were present, both being due to anæmia, the patient rapidly recovering on treatment with iron; still, the combination of these two symptoms would make one extremely suspicious. The form of headache most likely to be associated with cerebral tumor was next discussed, and it was pointed out how frequently, if not careful, a mistake might be made with myopic patients, who often complained of dimness of sight and headache. The next question raised was as to the means of diagnosing the kind of tumor, but it was pointed out that this was not of so much importance as to diagnose its presence, because one's duty to a patient is always to give large doses of iodide of potassium.

Animals as Medical Practitioners.

The *Medical Record* says that M. G. Delaunay, in a recent communication to the London Biological Society, observed that medicine as practiced by animals is thoroughly empirical; but the same may be said of that practiced by inferior human races, or, in other words, by the majority of the human species. Animals instinctively choose such food as is best suited to them. A large number wash themselves and bathe, as elephants, stags, birds, ants. In fact, man may take a lesson in hygiene from the lower animals. Animals get rid of their parasites by using dust, mud, clay, etc. Those suffering from fever restrict their diet, keep quiet, seek dark and airy places, drink water, and sometimes plunge into it. When a dog has lost its appetite, it eats that species of grass known as dog's grass (*chien dent*), which acts as an emetic and a purgative. Cats also eat grass. Sheep and cows, when ill, seek out certain herbs. An animal suffering from chronic rheumatism always keeps, as far as possible, in the sun. The warrior ants have regularly organized ambulances. Latreille cut the antennæ of the ant, and other ants came and covered the wounded part with a transparent fluid secreted from their mouths. If a chimpanzee be wounded, it stops the bleeding by placing its hand on the wound, or dressing it with leaves and grass. When an animal has a wounded leg or arm hanging on, it completes the amputation by means of its teeth. A dog, on being stung in the muzzle by a viper, was observed to plunge its head repeatedly for several days into running water. This animal eventually recovered. A sporting dog was run over by a carriage. During three weeks in winter it remained lying in a brook, where its food was taken to it. This animal recovered. A terrier hurt its right eye. It remained under a counter, avoiding light and heat, although it habitually kept close to the fire. It adopted a general treatment, rest and abstinence from food. The local treatment consisted in licking the upper surface of the paw, which it applied to the wounded eye, again licking the paw when it became dry. Animals suffering from traumatic fever treat themselves by the continued application of cold, which M. Delaunay considers to be more certain than any of the other methods. In view of these interesting facts, we are, he thinks, forced to admit that hygiene and therapeutics, as practiced by animals, may, in the interest of psychology, be studied with advantage. He could go even farther, and say that veterinary medicine, and perhaps human medicine, could gather from them useful indications, precisely because they are prompted by instincts which are efficacious in the preservation or restoration of health.

Poisoning by the Seed of Datura Stramonium; Two Cases; Recovery.

Dr. P. B. McCutcheon writes in the *New Orleans M. and S. Jour.*, 1885:

On August 21, 1885, about 12 m., I was called to see Mrs. W., and her son, H. C. W., aged 26 years. I found the mother in bed, complaining of headache, a sense of weakness, and great thirst. The pupils of both eyes were widely dilated, the tongue and fauces very dry, pulse rapid. There was partial delirium. I was informed that about eight o'clock the whole surface of the body had become very red and swollen. Neighbors, recognizing that poison of some kind had been swallowed, gave an emetic, which produced frequent vomiting. The only

symptoms that the son presented at the time of my visit, were dilated pupils, thirst, and swollen hands and arms. He says that he first noticed that he could not see distinctly, whilst in the car at 7 a. m., on the way to his work. Very soon thereafter he had confusion of ideas and dryness of throat; when he arrived at his shop about 8 a. m., he was told that he was intoxicated; while attempting to work, he fell to the floor; water was thrown over him, and he recovered sufficiently to get home by means of the cars.

I obtained the following account as bearing on the cause of these symptoms:

On August 20, a friend gave the mother a branch of datura stramonium, to which were still attached the leaves and some capsules, which contained nearly ripe seed. The leaves were stripped from the stalk and mixed with lard, to form a salve; this was done in a skillet. Some coffee was on the table, and a few of the seed from the capsules, which had been opened, became mixed with the coffee. Moreover, the coffee was parched in the same skillet in which the salve had been made.

Next morning this mixture was ground, and an infusion made which was drunk by the mother and son about 6 a. m., and in one hour's time the symptoms of poisoning were manifest as described. By 4 p. m., all these abnormal manifestations had nearly disappeared.

The only treatment that I used was sulphate of morphia in one-eighth grain doses every two or three hours.

Displaced Spleen and Pregnancy.

Much attention has recently been paid to the anatomical or teratological conditions wherein the kidneys or liver are found to be unusually movable. Arguments have been brought forward to show that the condition represents a mere anatomical or physiological peculiarity, or, on the other hand, that it is pathological, and of the nature of hernia. The latter theory is adopted by Landau and others, who also deem pendulous abdomen and uterine displacements to lie within the province of hernia. Dr. Gabriel Engel, of Klausenburg, Transylvania, has published in the *Orvos Természettudományi Értesitö*, a paper on the "Ætiology of Displaced Spleen." In three cases under his observation, two occurred in pregnant women, without interfering either with gestation or labor. The third case was very interesting. A woman suffered from amenorrhœa for sixteen months, and pregnancy had been confidently diagnosed; the patient, cachectic from malaria, had also been seized with acute pains resembling those felt during labor. A large soft tumor filled the lower part of the abdomen and the pelvis. Quinine was administered in all three cases, and the tumors diminished in size. Otherwise, should drugs or an abdominal belt have failed to relieve, Dr. Engel would have recommended extirpation in preference to the artificial induction of atrophy of the spleen by twisting that organ by manipulation applied to the lax abdominal walls, so as to cause obstruction of the vessels of the hilum. Dr. Engel distinguishes between displacement and mere enlargement, although the three cases which he quotes seem, from the satisfactory therapeutic results, to have all been instances of ague-cake. From any point of view it is doubtful if displaced spleen be homologous, pathologically speaking, to movable liver or kidney.

Unusual Effects of Malaria.

Dr. J. J. Norwine thus writes in the *Therapeutic Gazette*, 1885:

Case 1. Mamie M., age 13. Family history good; no syphilis, gout, or rheumatism; has always been a healthy, stout girl, and at present presents a very healthy appearance; menstruated first at the age of 12, and has been regular in frequency, normal in quantity, and without pain during the flow. This, in brief, constitutes the past history. Patient now presents the following symptoms: Three weeks ago she arose from her bed feeling quite well, "but," says her sister, "she was so nervous." This condition has existed ever since, and is gradually growing worse; her rest at night was good after once getting to sleep, probably not awaking during the night; bowels constipated; appetite failing last few days; does not complain much of pain. Upon this history, in connection with a close physical examination, I diagnosed chorea, the result of malarial infection, and upon this basis I gave the patient the usual anti-malarial agent, sulphate of quinine, combined with that most efficient vehicle, the syrup of yerba santa, in doses of 8 grains every two hours, giving four doses daily, and to my satisfaction the patient had entirely recovered on the third day. I should have added that a liberal mercurial purge was given prior to the quinine.

Case 2. Child, age 1½ years, suffered from chronic diarrhœa for over thirty days. The usual treatment was given—astringents, pepsin, bismuth, and tonics—but all seemed to

only relieve for a very short time. At last my attention was called to the fact that the child's bowels were worse every other morning, and I immediately gave sulph. quininæ, gr. iv, until I gave four doses daily, and the child was relieved the second day, and made a rapid recovery. I claim that it was the anti-periodic effect of the quinine, and not the effect of a bitter tonic, that produced the cure, for the result was too quick.

Obstinate Vomiting Cured by the Stomach-Tube.

Dr. Maere has communicated to the Ghent Medical Society a case in which a young woman who had had some mental shock suffered from such extreme irritability of the stomach that nothing whatever could be retained. The bowels also absolutely refused to act. This obstinate constipation was overcome by faradaism applied by means of an insulating sound with a metallic button introduced into the rectum. Nourishment was given by the bowel. At last, as the patient's condition appeared to be somewhat critical, Dr. Maere, after painting the pharynx with a one per cent. solution of cocaine, introduced a Debove's stomach-tube, and poured in a litre of milk and water in equal proportions. This was retained, and afterwards the patient was able to take and retain gradually increasing quantities of liquid nourishment. In a week she was convalescent. The author suggests that the girl's hysterical condition had caused the stomach to contract in the same way as the limbs sometimes do in these cases, and that when this was once forcibly overcome by feeding through the stomach-tube it did not recur. He remarks that painting the pharynx with cocaine is, as has been pointed out by Dr. De la Roche, much more effectual in facilitating the passage of the œsophageal tube than the application of bromide of potassium.

Atrophoderma Pigmentosum.

The pathology of this affection, which has received so many names, appears to be fairly understood as the result of the labors of Kaposi, Neisser, Vidal, Radcliffe Crocker, and others. About thirty-six cases appear to have been placed on record. Dr. White, of Harvard University, describes two cases in the *Journal of Cutaneous and Venereal Diseases.* The cases occurred in a family of Russian Polish Jews. There were seven children in the family, and the two affected were the second and sixth. The first case was a boy aged seventeen, in whom the melanotic and atrophic conditions were well marked, and telangiectasis was evident only about the face. The second case was also a boy, three years old, in whom the only marked morbid condition appeared to be on the face, and to consist of abnormal pigmentation. The author avers that there can be no doubt of the correctness of the diagnosis in the cases, the first of which exhibits everything characteristic of the disease, except the final transformation of parts into malignant growths. White regards the melanosis as the initial lesion, and would so name the disease, adding the terms telangiectodes and atrophica as secondary conditions. Radcliffe Crocker says the disease is admittedly an atrophy of the skin, and suggests the term "atrophoderma pigmentosum."

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——*Harper's Monthly,* in all the thirty years that it has come to us, has been among the most interesting and valued of all our exchanges, and one that commends itself with increasing interest as its years increase. Its illustrations are always of the highest order.

——*The Century* is fairly the rival of *The Monthly,* and while sometimes it may not quite equal it, so fully fills a place of its own both in literature and illustration, that it is always more than welcome.

——*St. Nicholas,* the young people's monthly, is beautiful beyond comparison. There is nothing in periodical literature for the young that can equal its charming illustrations and "well-told tales." Mary Mapes Dodge is its very competent conductor.

——*Littell's Living Age,* a valued exchange of more than thirty years, holds a place that belongs to no other magazine. Without illustrations, or any of the modern attractions of monthly or weekly periodical literature, it is their equal, and to many readers their superior. Its weekly contents of choice *English* literature are invaluable.

——Of family newspapers, *Harper's Weekly,* as an illustrated paper, is the first and best in the country. It is always fresh and beautiful, preserving for future generations the notable scenes of the present, while its literary contents are high-toned and valuable.

——*The Germantown Telegraph* also holds a foremost place. Its new editor has, if possible, made it more attractive, while maintaining the *purity* of its character, that has always made it so welcome as a family paper.

——*The Vermont Journal* is of the same standard, well edited, and always interesting.

——The *Bennington Banner*, the *Cincinnati Weekly Gazette*, and the *Trenton Gazette*, are excellent and welcome exchanges.

——Of our religious exchanges, the New York *Evangelist*, the New York *Christian Advocate*, the *Presbyterian Banner*, of Pittsburgh, and *The Presbyterian*, of Philadelphia, are as valuable for their general, historic, and scientific contents as for the information on more strictly religious matters.

——*The Sunday-School Times* is a bright and valuable weekly paper, not only for the Sunday-school teacher, but for the general reader.

BOOK NOTICES.

A Treatise on Bright's Disease of the Kidneys, Its Pathology, Diagnosis and Treatment. By Henry B. Millard, M. D., etc. 8vo., cloth, pp. 264. Wm. Wood & Co., New York.

This is the second edition of Dr. Millard's work, the first having appeared in 1883. It has met with a favorable reception by the profession, and merited it, as it is founded on conscientious, original research, and a wide field of observation both in hospitals and private practice. The author includes chapters on the anatomy of the kidneys, on albuminuria, and on the urinary secretion generally. In this second edition he has included a considerable amount of new matter, bearing especially on the result of recent researches on the nerves of the kidneys, on the tests for albumen, and on the true etiology of what are generally, though he thinks erroneously, termed uræmic accidents. These additions, and others throughout his pages, bring the work down to the latest advances in the pathology of diseases of the kidneys.

Transactions of the State Medical Society of Wisconsin. 8vo., pp. 170. Appleton, Wisconsin, 1885.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. 8vo., pp. 254. Baltimore, 1885.

In the first of these volumes about one-half of the reading matter is occupied with the Proceedings, the remainder with original articles. The latter contain usually interesting practical material by independent observers. We may mention a discussion of the comparative merits of Syme's and Pirogoff's Operations, by Dr. Meacher; The Treatment of Pyrexia, by Dr. Dodson; Notes on Insanity, by Dr. Wigginson; The Ignorant Use of Ergot, by Dr. Davis, etc.

The Medical and Chirurgical Faculty of Maryland rely more on official reporters to make summaries of the advances in their respective branches than on voluntary papers to fill their volume. It lacks therefore much of the freshness which we find in society transactions where original observation is more assiduously sought for. The reporters generally perform their work faithfully, and render good abstracts. There are also a limited number of "volunteer papers," most of which we have already referred to as sent us in advance reprints. They are usually carefully prepared.

The Principles and Practice of Medicine. By the late Charles Hilton Fagge, M. D., etc. Edited by P. H. Pye-Smith, M. D., etc. Vol. ii., pp. 888, 8vo. P. Blakiston, Son & Co., Philadelphia, 1886.

The excellent character of this work, to which we alluded on the appearance of the first volume a few months ago, is steadily maintained throughout the second and concluding volume now before us.

The contents of this volume embrace the diseases of the heart, alimentary tract, liver, urinary organs, joints, bones, circulatory system, and skin. The last mentioned is added by the editor, whose judicious notes and careful revision increase the value of the work in all its parts. Within its compass there is no other general treatise of recent issue which equals this work for the fullness and accuracy of its information on the whole realm of practice. Dr. Fagge was a man of unusual capacity, and an enthusiast in medicine. From his student days he was singled out by his teachers and associates as one of the most brilliant of his compeers. The present treatise was the great work of his life, and bears throughout marks of the most careful elaboration and extended studies. We have no doubt that it will take, as it deserves, a place at once in the foremost rank of popular text-books on practice. While it is not too large for the reading of the student, it includes in its nigh two thousand pages much that will be instructive to the practitioner of many years' standing.

THE

Medical and Surgical Reporter.

A WEEKLY JOURNAL,

ISSUED EVERY SATURDAY.

D. G. BRINTON, M. D.,
JOSEPH F. EDWARDS, M. D., } EDITORS.

The terms of subscription to the serial publications of this office are as follows, payable in advance:—

Med. and Surg. Reporter (weekly), a year, $5.00
Quarterly Compendium of Med. Science, - 2.50
Reporter and Compendium, - - - 6.00
Physician's Daily Pocket Record, - - 1.50
Reporter and Pocket Record, - - - 6.25
Reporter, Compendium and Pocket Record, 7.00

For advertising terms address the office.

Marriages, Deaths, and Personals are inserted free of charge.

All letters should be addressed, and all checks and postal orders drawn to order of

D. G. BRINTON, M. D.,
115 South Seventh Street, Philadelphia, Pa.

TUBERCLE-BACILLI.

Though the number of eminent medical authorities acknowledging the pathogenic character of micro-organisms daily increases, we do not wish to refer here to the still disputed question, but only mention an important discovery by Prof. Voltolini, of Breslau, (*Allg. Med. Centr. Zeit.*, August 15, 1885). One fact is recognized by all: the presence of tubercle-bacilli in the sputa or in any other morbid discharge (as from the ear, etc.) of a patient is a sure proof of the tubercular infection of the individual, while their absence does by no means determine the contrary.

It might thus appear very easy to discover the tubercular taint in a person. Such really is the case, but the naked truth remains that it is occasionally exceedingly difficult to prove the presence of tubercle-bacilli. As well known, the microbes of lepra and of lupus so greatly resemble each other and those of tubercle, that in all such doubtful cases only the inoculation of an animal by the suspicious material or the pure culture of the bacilli can settle the point. But in both cases we have to wait at least a month before we can establish a correct diagnosis, for in the one we have to look for the result of the artificial infection, and in the other we have to watch the development of the species under pure culture. Many different methods have been proposed during the last year, to overcome this difficulty and to find a way which would enable us at once to recognize the true tubercle-bacilli from those of lepra and of lupus; but such have been scarcely reported ere some investigator proved their fallacy or unreliability.

Voltolini, however, seems to have discovered a procedure which promises the long-desired aid. This procedure is as follows: After the sputum or the pus has been treated in the usual manner on the watch-glass, it is allowed to dry thoroughly in the atmosphere, and the glass then drawn in the well-known way through an alcohol flame. The glass is then taken hold of by brass pincers, or, still better, glass pincers, and dipped *quite slowly* into the strongest undiluted nitric acid, *i. e.*, the acidum nitricum fumens of 145 to 150 specific gravity; it is then taken out just as slowly, and at once dipped into a vessel containing pure water, and there rinsed. The thus prepared material is then dried and afterward placed into the coloring fluid, according to the usual method, and in this the floating glass is permitted to remain for 24 hours, when the color is removed with diluted nitric acid. For the first coloring process

fuchsin, for the second a solution of malachit, is employed by V. The fuming nitric acid used must each time be a fresh preparation, as it at once attracts the water from the atmosphere, and by giving off nitrous vapor changes to common nitric acid, which no longer retains the property of the fuming acid.

Tubercle bacilli thus treated perfectly retain their form, shape, and color, only their contents have undergone an alteration; their interior appears as little nodules attached to each other like a chain of pearls. The bacilli, therefore, seem to consist of a hyaline wall and coagulable contents.

Neither the bacilli of lupus nor those of lepra show the same changes. This "chain-of-pearls" appearance, being characteristic of tubercle bacilli alone, may well serve, therefore, for the differential diagnosis of the three kinds of micro-organisms mentioned, while the method will permit us, henceforth, at once to establish the presence of tubercle bacilli without having to await the results of inoculation or of pure culture.

ANTIPYRIN IN TUBERCULOSIS.

The MEDICAL AND SURGICAL REPORTER brought recently several reports concerning the antifebrile effect of antipyrin. In the meeting of June 6, 1885, of the Paris Medical Society, Dr. Daremberg greatly added to our knowledge of the new remedy by giving the results of his observations of the effect of antipyrin in tuberculosis.

According to him, the effect of antipyrin is a rapid but transient one, and for this reason special precautions have to be taken in administering this drug in phthisis, as such patients rarely have two days in succession the same type of fever.

Such individuals ought to take the first dose of the remedy (16 grains) before the fever symptoms appear; ere, therefore, the temperature has reached 101°. Should the temperature ascend more than one-half degree per hour, then a second dose has to be administered. If the thermometer indicate an increase of but one-quarter of a degree an hour before a meal, then the dose must be at once renewed, as digestion might otherwise bring on the fever. But there must always be one full hour between the taking of a dose and the meal. If the remedy is administered after the fever has already commenced, profuse sweats, vomiting, and debility then are the disagreeable side-effects, and in these cases the dose has to be doubled to obtain the same result.

In this manner consumptives may use for months daily 48 to 96 grains of antipyrin with the result that patients, who would otherwise be confined to their bed, walk about, evince appetite, and their lung affection appears to have become stationary, though probably progressing, but they enjoy in general a well-feeling, as the annoyances due to the fever no longer exist.

In cases of acute attacks of fever of short duration, it is better to administer antipyrin at the beginning of the febrile seizure, as its diaphoretic action is rather desired. But it is well in such cases to renew the dose at night to prevent a recurrence of the fever during sleep, a fact apt to occur. Thus, a night of rest is secured without the necessity of having recourse to narcotics.

Dr. Dujardin-Beaumetz confirmed the great antifebrile action of antipyrin in phthisis, but cautions against too large a dose, and considers 8 grains fully sufficient for the purpose indicated. As the main reason for this view, he mentions the fact, that sweats are anyhow annoying to consumptives, who suffer from them so frequently in consequence of their disease. Besides, large doses appeared to him to diminish the appetite.

From these and other reports, it is apparent that we have in antipyrin a valuable antifebrile remedy in pulmonary phthisis.

NOTES AND COMMENTS.

Unpleasant Effects of Antipyrin.

While of undoubted value in reducing temperature, there can be no question but that this drug does occasionally produce some very unpleasant effects. The following case in point Dr. W. Graham reports in the *Canada Lancet:*

On the 7th of October he was called to Mrs. B., æt. 45, a patient in the fourth week of typhoid, whom he had been attending, and considered convalescent. Her temperature was 103.6°, pulse 120, respiration 30, fine crepitation throughout the lower portion of both lungs. He thought antipyrin the best selection as an antipyretic, judging that it would produce less depression than either quinine or salicylate of soda. He happened to have with him just one drachm, and divided it into five equal powders of two grains each, of which he ordered one every three hours. Next morning early, a messenger was sent with the unwelcome news that the patient was dying. On his arrival he found her in a state of severe collapse. Cold per-

spiration stood in drops over her face and parts of her body, cold hands and feet, temperature 95°, pulse feeble and flickering, impossible to count it. He was, indeed, alarmed, and expected to lose his patient. He immediately gave her ammon. carb. and digitalis, with whisky at short intervals, and applied artificial heat around the body, and was very very much pleased to find that this treatment counteracted the unpleasant symptoms, and she ultimately recovered. Two or three days afterwards her daughter drew his attention to a patch of purpuric maculæ about the size of the palm of the hand on the back, just below the seventh cervical vertebra. This was, no doubt, the characteristic eruption that results from the use of antipyrin, but it was not observed on any other part of the body.

A Fatal Case of Nitric Acid Poisoning.

Dr. Dyce Duckworth thus writes in the *Med. Press*, November 8:

A city merchant, æt. 29, was admitted to St. Bartholomew's Hospital on February 11, 1885, with the history of having swallowed about an ounce of strong nitric acid shortly before. He had been seen by a surgeon, and was found vomiting. Lime water was given to him. He was supposed to have had his luncheon before he took the poison. Calcined magnesia in milk was given freely, and the vomit, previously acid, became alkaline. Opium was given per rectum, and linseed and opiate poultices were laid on the abdomen. The suffering was intense; retching and vomiting; collapse followed. Nutrient enemata with brandy and opium were given. His cough was troublesome; next day there was relief from the opium. The urine contained blood on two occasions, and albumen twice afterwards. Vomiting and retching persisted at intervals, and the pulse became running. Shreds of putrid mucous membrane were ejected. The temperature rose on the fourth day to 102.2°. Diarrhœa set in, but no blood was passed. There was a suspicion of pericarditis. The patient nearly sank on two occasions, but was revived by nutrient enemata with brandy. On the fifth day he was so much better that his friends believed that he was recovering. He died one hundred hours after taking the acid. On examination there were signs of inflammation at the fauces, and down the œsophagus, stomach, duodenum, and as far as the jejunum. The stomach was contracted, but not perforated. Some local peritonitis over the stomach and liver, but no general peritonitis. The pericardium was sticky. He took in all over an ounce of laudanum while under treatment.

Symptoms Resulting from Swallowing a Caterpillar.

Although we will rarely be called upon to treat a patient who has swallowed a caterpillar, yet should such a curious case occur, it will be well not to be taken unawares; hence we note that Dr. George M. Waters, of Columbus, O., thus writes to the *Med. Record:*

"On November 10 I was called to prescribe for a child seven months old. From the parents I learned that the patient had been in good health previous to 2 p. m., and at that time awoke from a sound sleep with a scream, and appeared to be choking. Nothing could be found in the throat to account for these peculiar actions, but considerable redness was noticed about the fauces. At 8 p. m., I found the throat intensely inflamed, a slight elevation of temperature, pulse feeble and rapid, and the patient very restless. The following morning the throat inflammation had subsided, but the temperature had reached 102° F., there were symptoms of intense gastric distress, and the face, body, and upper extremities were covered with an eruption resembling a severe case of urticaria. Bismuth and oil were ordered, with a mild opiate. On the morning of November 12, the eruption, with exceptional spots, had disappeared, the temperature had fallen to 99.5°, and there were no indications of pain. The patient was much better, and well it might be, for with the first free stool was passed the body of a caterpillar an inch and a half long, and larger than the common lead pencil; the hair had been completely stripped from the body, which was complete and covered with mucus. With the two following stools came the brown hair of the caterpillar. This was followed by an inflammatory diarrhœa for three days, when the child began to improve rapidly, and is now in good health."

Conception while the Uterus Contained a Placenta.

Dr. W. M. Trow, of Northampton, Mass., gives an account of the following case to the *Medical Record:*

"Mrs. ———, a fleshy woman, and the mother of three children, regular in her periodicals, except during pregnancy, passed her period in February, 1885. In March she was normally unwell, and was regular

till August, which she passed. In September she again menstruated. In October she was taken with considerable flow and severe pain, which continued for twenty-four hours, when I was called to see her. On my arrival I found a three months' fœtus, which she expelled just before my entering the house. The placenta was partially detached, and occupied the mouth of the uterus. Under the influence of ergot it came away in a short time in a normal condition. The following day she was feeling well; the flow as usual in such cases. Four days after, I was again called, and found that she had been flowing twenty-four hours, and suffering severe pain most of that time. An examination revealed the mouth of the uterus open enough to admit two fingers, and occupied by a fleshy mass which was firmly attached to its fundus. I gave chloroform and introduced my hand into the vagina, when I was able to detach the mass, which was at once expelled. It proved to be a placenta as large as is usually found in a conception of four or five months. Pain and flowing at once ceased, and she made a fair recovery. This was an unique case with me in an experience of some thirty years."

Cocaine in Vaginismus.

Dr. J. Schrank thus concludes an article in the *Louisville Med. News*, November 28:

"For promoting dilatation the favorable action of cocaine commends it above every other means hitherto employed. While efforts at dilatation, after penciling in the ordinary way, advance only gradually, and to the patient, when not actually intolerable, are exceedingly burdensome, patients deport themselves with the greatest indifference under such efforts made during cocaine narcosis, for they scarcely feel the dilating instrument.

"The cure of vaginismus can then first be regarded as complete, when by dilatation efforts the vagina has been enlarged to the extent that no abrasion of the hymeno-vaginal lacerations, nor of the spots where they existed, takes place during coitus.

"Finally, in a medico-legal aspect, cocaine has also a great significance, since penciling with a solution of this drug renders coitus possible without particular pain, and thus obviates marital troubles."

Spasm of the Sphincter Ani.

This little muscle seems to be an exceedingly important one as regards our comfort or discomfort. We all know how very painful a fissure may be made by its contraction, and we are pleased to call attention to its importance by noting the following conclusions of Dr. T. Pridgin Teale, in the *London Med. Times*, November 28:

1. That spasm of the sphincter ani, as a cause of constipation, suffering, and ill-health, is often overlooked, and patients are allowed to suffer for years who might be cured in five minutes.

2. That spasm of the sphincter can be arrested by forcible dilatation more satisfactorily, more certainly, more scientifically, and with greater safety, than by division by the knife.

3. That in all operations on the rectum and anus, dilatation of the sphincter is an essential, almost an indispensable element in the treatment.

Maternal Impressions and Congenital Deformities.

The following very peculiar cases are of interest in this connection. Dr. George Harvey reports them in the *Brit. Med. Jour.*, December 5, 1885:

A few years ago he confined a woman twice successively of a headless child; in each case she had been frightened by a man's head suddenly appearing around the corner of her house. Both confinements occurred in the early stage of pregnancy. Quite recently he attended Mrs. S., a primipara, whom he delivered of a male child with a well-marked hare-lip. The father has one, but in a very modified form, so much so that it is hardly perceptible. At no period of gestation did her mind revert to her husband's physical defect; but, immediately after delivery, she asked if the child's lip was "all right," and this was the first thought she gave to it.

The Physiological Effects of Guaranine.

In the *Polyclinic* (January 15th), Dr. Thos. J. Mays, having made a series of experiments, thus sums up these effects:

1. That it affects both sensory and motor nerves; the former before the latter.

2. That it paralyzes sensation and motion from the spinal centres, and not, like brucine and cocaine, from the periphery.

3. That it produces hyperæsthesia of the whole body, and afterward convulsions.

4. That its convulsions are spinal, and not cerebral.

5. That it first increases and then decreases respiration.

6. That it differs in its action from that of caffeine, in that it has a stronger affinity for sensory, and less for motor nerves, and that it is more analogous to theine in its action.

Strychnia in Post-partum Hemorrhage.

If post-partum hemorrhage be due to nerve exhaustion, as we can readily suppose, we can understand how strychnia would prove beneficial. At any rate, Dr. Joseph Thompson tells us in the *Brit. Med. Jour.*, December 5, that it is. He knows of several cases where there was a previous history of flooding after labor, but where, when strychnine had been given beforehand, no hemorrhage came on. Strychnine has, no doubt, a marked influence in preventing *post-partum* hemorrhage. He usually gives five-minim doses of the liquor strychniæ in tincture of orange-peel three times daily for a month or six weeks before the expected time, and he cannot recall any case of flooding where it has been given in this way.

Unilateral Œdema.

A case is reported by Dr. Bassi in the *Rivista Inter. di Med. e Chir.*, in which an hysterical young woman presented the curious phenomenon of a unilateral œdema that appeared with each menstrual period. There was no other derangement of general health, although the patient is described as delicate. The œdema was absolutely limited to the right half of the body, but there was no alteration in the color, the temperature, or the sensitiveness of the two sides, although less irritation was necessary to produce reddening of the skin on the right side. Concurrently with this temporary œdema there were signs of congestion of the lung on the same side, and the right ovary was painful. Complete anæsthesia of both corneæ and of the fauces was observed.

The Supra-pubic Operation of Lithotomy.

Sir Henry Thompson, who is the greatest living authority on this subject, thus concludes a paper in the *Lancet*, December 5:

"I am satisfied that the operation described is well adapted for tumors of the bladder when ascertained to be of large size, and when they are not merely simple polypoid growths of a simple kind, which are easily removed through the perineal incision. I adopt, also, a modification of the proceeding for those cases in which a perineal exploration has first been made, and in which, therefore, the bladder cannot be distended; a modification equally applicable to the cases of women in whom the same condition practically exists. This I shall show on a subsequent occasion."

Meningo-Encephalocele.

A remarkably large meningo-encephalocele springing from the region of the anterior fontanelle, in a female child aged two months and a half, was shown before the Medical Society of the Mauritius by Dr. Laurent, a graduate of the University of London. The shape of the tumor was reniform, and it had somewhat the aspect of an elephantoid scrotum, and was pedunculated. It was twice the size of the fœtal head. The tumor was removed with strict antiseptic precautions, but the infant collapsed. The mother of the child had been shocked, when she was in the second month of pregnancy, at the sight of an elephantoid scrotum exhibited to a crowd by a drunken man.

Fixed Vocal Band in Lesion of the Recurrent Laryngeal—Paralysis or Spasm?

There is under observation in the Throat Department of the Philadelphia Polyclinic a case of aneurism of the arch of the aorta and left subclavian artery, producing fixation of the left vocal cord in the median line. The patient speaks in an abnormally high-pitched, stridulous voice; indicating tension rather than relaxation of the band. This suggests the possibility that the affection might be a tonic spasm of the adductor group of muscles, or closers of the glottis (Krause), rather than paralysis of the abductor muscle, the opener of the glottis, to which this position of the vocal band is generally attributed.

Blood-letting Extraordinary.

The *Med. Record* says that M. Thevenau, of Nivernais, according to the *Revue Médicale*, had under his care the wife of a sheriff named Gignault, twenty-four years old, whom he bled, in the course of nine months, from September, 1726, to June 1727, 3,904 times. The woman still lived, and was bled 651 times more in the next six weeks. Bleeding, it appears, was the only means of giving the woman relief, and it was accordingly practiced most industriously for three and a quarter years, the number at the expiration of that period reaching the very respectable figure of 26,230. It is not stated why the phlebotomy was discontinued at this time, but possibly the patient died.

Herpes of Pharynx.

One of those rare cases of herpes of the pharynx, in the vesicular stage, was seen at the Throat Department of the Philadelphia Polyclinic in September.

The patient, a boy nine years old, had complained for about four days of sore throat, with slight constitutional disturbance. On examination several vesicles were seen on the pharynx and pharyngeal side of the left posterior half arch.

Later, vesicles developed on the tonsil and soft and hard palate, and finally, on the lip and nose. These vesicles soon broke, leaving small ulcers, which healed in the course of a week.

Chronic Ulceration of the Face.

In the *Lancet*, December 5, Mr. Juler reports two cases of chronic ulceration of the face resulting from laryngeal fistula. The treatment which had been most successful had consisted (1) in removal of the obstruction, and (2) in complete removal of the thickened tissue. A Volkmann's scoop was used for scraping the ulcerated surface, and skin-grafts had led to rapid healing, without any noticeable scarring or contraction of the skin.

CORRESPONDENCE.

BERLIN CORRESPONDENCE.

The Medical Faculty of the Berlin University.

EDS. MED. AND SURG. REPORTER:—

The important changes and improvements which have been taking place during the last few years in all parts of the capital are also noticeable in medicine—great discoveries have been made, and medical science is becoming larger and more extensive daily. As a consequence, the time of study has been increased to nine terms, and it is questionable if this is sufficient. Many voices had been raised for ten terms, and possibly that had been better, for it is not alone the extensiveness but the difficulty of the subject which requires long and concentrated study. Possibly every medical student will remember the confusion into which the study of anatomy threw him. One is overweighted by the long and difficult names. I shall never forget how old Professor Reichert, in one of his lectures, having named the different bones and ligaments, nerves, arteries, veins, muscles, etc., and noticing our perplexed and horrified faces, remarked, "Do not be alarmed, gentlemen; when I began the study of anatomy I believed as you do now, that I should never be able to master it, and now I am Reichert."

Splendid scholar as he was, soulful and enthusiastic in everything pertaining to science, kind and affectionate to his pupils, he could yet scarcely fill the requirements so large a university calls for from its leader, in his later years. An old man, with snow-white hair, he was present and active from 8 a. m. till 2 p. m., but he, an old man, could no longer have the necessary energy and activity required.

It was a lucky move of Berlin to select Waldeyer. He combines the qualities of a great scholar with those of an excellent teacher. His theoretical lectures are very popular, for he speaks with precision and an earnestness which fascinates his hearers.

But the grave point in the study of anatomy is in practical work in dissection. As in all large universities, there are difficulties here; although the material offered to the student is large, still the crush on the part of the student is so enormous that it requires great judgment and disposing talent to do justice to all; and just here Waldeyer is successful. He understands how to use the material fully and to the best advantage. He who has received a *part of a dead body* is obliged to pass an examination at the end of the week with respect to it. As a rule, Waldeyer himself examines. Only when the pupil has thoroughly mastered the object does he receive a new one. If it is not mastered, the student must work and study it further. In this manner two objects are reached—the student is obliged to earnestly study, and waste of the costly material is prevented.

Professor Hartmann continues as professor. Each professor has an assistant, who helps in giving the students the necessary instruction in the preparing. Hartmann reads on osteology, syndesmology, and anthropology of the primitive people. Waldeyer reads on anatomy and embryology.

In physiology nothing is changed. Prof. Du Bois Raymond teaches this in his class, and his spirited delivery, the elegance and precision of his experiments, make this one of the most interesting. During the summer term he lectures on the physiology of the muscles and nerves, a department which he has specially cultivated.

Every Monday evening during the winter, he gives his celebrated lecture on "Some Natural Scientific Discoveries of Late

Times." His words are listened to by more than five hundred persons, not only students, but teachers, officers, and others.

With regard to chemistry, botany, and physics, no alterations have been made. Hofmann, Helmholz, Schwendener, and Eichler, teach these. But we will mention more especially Christiani, professor extraordinary. It may be said that he has created a new branch, it is physic for medical men. For a number of years he has endeavored to acquaint medical men whose knowledge in general of physics might be small, with such physical facts as are related to medicine. He reads experimental medical physics, holds courses on pharmaceutical physics, and has a special class on "Die Mattematische Physic zum Behufe der Physiologischen Physic," for those who may wish to enter more deeply into science.

With the mention of pathological anatomy we arrive at the best of the Berlin University. He who has studied here has had the good fortune to have the personal instruction of the man who has brought about mighty changes in medicine—a man of whom all those connected with medicine can learn. In the theoretical lectures in winter, Virchow treats of general, in summer of special pathology. I believe Virchow needs a cyclus of six years to finish special pathology.

But here, also, the grave point lies in practical work—six times weekly for two hours, which, however, are oftener three and four, practical courses of pathological anatomy are announced. Once a week dissections take place. Here the students are to learn to make a correct autopsy; they themselves dissect, and are required to write down what they have found.

Twice during the week there are practical studies which serve towards the microscopical recognition of pathological changes. A large number of subjects for demonstration are at hand. Virchow connects his lectures with these; in his usual clear manner he reviews the objects, demonstrates the symptoms, and then hands round the objects, with the necessary explanations.

These courses, which are as entertaining as instructive, often extend to four hours.

Three days in the week are given to microscopical technic and to the microscopical recognition of pathological changes. And here the name of the man deserves to be mentioned who, by his extraordinary diligence and perseverance in his work for the Berlin University, deserves credit. I mean Mr. Grawitz. He directs these courses independently, and in an easy, graceful manner reviews the changes which are in the object to be examined, shows what is to be found, and explains this still clearer, with good drawings; then the students begin work, and Grawitz goes from one to the other—very often there are more than eighty students present—and superintends the work of each, constantly demonstrating and examining; he controls the students' preparations, helps the unskilful to prepare such, and is indefatigable. It is not astonishing that he is exceedingly popular, and was greeted with unanimous joy on his return from Greifswald, where he had been called to substitute Professor Grohé.

Passing on to clinical instruction, we should now consider internal clinics and surgery. We shall return to the former, which has experienced important changes, in a later letter; for the present, I shall merely say a few words on surgery.

I cannot possibly describe surgical instruction in Berlin as otherwise than inefficient, and Berlin shares this fate with all universities. The surgical clinics are in the hands of Bardeleben and Bergmann, both first-class scholars, skilful operators, and admirable teachers.

Bergmann, especially, understands how to hold his hearers by his vigorous diction. When he treats on a case and seeks to lead up to a diagnosis, every attentive hearer works with him mentally, and seeks to form the diagnosis. And this is a consequence of his interesting discourse, for very little can be seen—and that is just where the inefficiency mentioned above lies in a nut-shell.

Bergmann's method is not to be underrated; but nothing can substitute a clear viewing of an operation, without which no one can become a good surgeon. Now, it is a deplorable fact that in Bardeleben's, as well as in Bergmann's clinic, everything can be seen except an operation. It is especially aggravating to see the backs of the innumerable assistants, whose persons fill up the last chink through which we might possibly catch a glimpse of the operation going on.

Of course, I understand that in a large circle of listeners, it is very difficult to afford every student an ocular view, but in some way the fact that nothing is to be seen should be remedied; some change should certainly be tried towards a better state of affairs.

The medical man of a large town does not need to undertake surgical cases; there are surgical hospitals for that purpose. But the doctor in a small town, what is he to do? He is obliged to study surgery thoroughly and carefully. That which can be learned

in the polyclinics and in the courses of assistants is not sufficient. There is but one way to learn surgery, and that is to be practically active in a hospital.

It is true that all could not be satisfied, but in two respects affairs might be altered for the better. In the first place, situations for volunteers might be established in all surgical clinics and in all large hospitals, where young physicians or advanced students would find opportunities to see closely the operation, and if possible assist. Schroeder, in his women-clinic, has introduced this, and he should be imitated. If, say, in ten hospitals ten volunteers were engaged at the same time, and remained half a year, in Berlin alone two hundred medical men annually could gain the knowledge of surgery necessary in their practice.

Then also the advantages that military students have over non-military ones is highly unjust. Such pupils of the Friedrich-Wilhelm institute who will bind themselves to serve later on in the army as military physicians for the same length of time that they have previously studied, are allowed to practically work in the Charité by passing over all clinical departments and working there as under-physicians.

The Charité is by far the largest hospital in Germany; it absorbs a large part of the material; it is, so to say, the clinical institute of the university. That it, therefore, should offer the military students such an important advantage over the others, is hard and unjust.

The places for under-physicians in the Charité should not be the privilege of the military student, but should be given according to the merit, the efficiency of any pupil. The number of such places should also be increased, and as already mentioned, new ones should be created in hospitals not necessarily in connection with the university.

To close, permit me to say that such institutions, if called into activity, might be a blessing not only with regard to surgery, but in other clinical departments. L. C.

Berlin 2, 1, 1886.

Fracture of Skull, with Loss of Cerebral Substance.

EDS. MED. AND SURG. REPORTER:

On the evening of September 15, 1885, the undersigned was hastily summoned to attend a boy, aged ten years, who had fallen from a swing, striking his head against an upright plank. I found the patient in a comatose condition, with his brains oozing from a fracture of the skull at the antero-superior part of the left parietal bone, the fracture extending from near the coronal suture posteriorly, and forming a quadrangle in size about 2x2½ inches, with the anterior edge driven in to brain about one inch, and posterior edge still adherent to skull, and presenting a hinge appearance. A portion of the brain, measuring f.ʒss, was detached in a lump, and is now in my office.

My friend, Dr. Benj. Pearson, assisted me in trephining the skull in two places, when, with some difficulty, we succeeded in raising the depressed bone. Dr. Pearson agreed with me in the decision that there had been lost f.ʒij of the cerebral substance.

The patient remained comatose for thirty hours. On the second day after the accident, during my morning visit, I noticed his eyes turn after me as I moved around the bed. He was very restless, and on my inquiring if he wanted to pass water, to my surprise he said "Yes," the first intelligent word he had spoken. He was raised up in bed and passed water freely into a vessel for the first time, while conscious, since the accident. He lay down, and at my request protruded his tongue for my inspection, although he was still very dull, and the request had to be repeated several times before he seemed to comprehend. During the day he began to chew his food when inserted into his mouth, and notwithstanding the fact that his tongue was heavily coated with a whitish fur, he seemed to relish it well.

On the fourth day he knew his mother and one of the neighbors, but others of them he did not recognize. He would now open his mouth for gruel, it being fed to him with a small spoon.

On fifth day he protruded his tongue without hesitation. On seventh day tongue was almost clean, and boy had a fair appetite. The temperature ranged from 97.8° to 100°; the pulse from 64 to 112. On twenty-first day he was taken home, a distance of three miles, and from this time he gradually improved. The wound discharged for about ten weeks, when it entirely healed. His mind is not in the least impaired, so far as any one is able to judge at this time. He has been attending school, and seems to learn as fast as the other children. His treatment consisted of bro. pot., tr. verat. viride (Norwood's), and continual applications of ice-water to his head, with an occasional calomel purge, guarded with a little opium. After a time, pot. iodid. was substituted for the bromide, and later the others were discontinued. This, to me, was a remarkably interesting case, and thinking that

it might be of interest to some of your readers, and that it might be the means of drawing out some other country doctor's experience in a similar or dissimilar isolated case, I concluded to report it. If either proves to be the result, I shall feel amply repaid.

W. L. DeWolfe, M. D.

Coaltown, Pa., January 24, 1886.

News and Miscellany.

The Peril of Physicians.

Those who have followed the course of the Stead trial at London, will have been interested in that feature of it relating to the physical examination made of Eliza Armstrong, the young girl alleged to have been abducted for immoral purposes. This examination was made by Dr. Heywood Smith, under the belief that Mr. Stead, who had applied to him, was the guardian of the child. The developments of the trial were such that the Royal College of Physicians considered it proper to examine into the matter and see if the conduct of Dr. Smith was improper or not. The committee appointed for this purpose reported that his conduct had been unprofessional, and that he deserved a reprimand. In carrying out this decision, the President of the Royal College of Physicians said: "Speaking generally and without regard to this special case, or to cases involving medico-legal questions or about to come before courts of law, it is, in the opinion of the college, a grave professional and moral offence for any physician to examine physicially a young girl, even at the request of a parent, without first having satisfied himself that some decided medical good is likely to accrue to the patient from the examination, and also without having first explained to the parent or legal guardian of the girl the inadvisability of such examinations in general, and the special objections that exist to their being made. Moreover, the college feels that a young girl should on no consideration be examined excepting in the presence of a matron of mature age, and so far as the physician can know of good moral character. By failing to conform to rules that should regulate professional conduct, rules founded on concern for the public good and on sound moral principles, you would, had not the college taken its present action, have brought dishonor on the college of which you are a member, and discredit on the profession to which you belong. Having regard, however, to the motives that influenced you in your actions, to the fact that you were misled by others, to your full acknowledgment of the wrong you did, and to the promise you have given to the college in reference to your future conduct, the college has determined not to erase your name from the list of its members, but has desired me as their mouthpiece to reprimand you, and to admonish you that any deviation in the future from strictly honorable professional conduct will be followed by the severest punishment the college can legally inflict." The dangers from the physical examination of females are not alone noticeable in cases similar to those mentioned by the President of the Royal College of Physicians, but any private examination of the kind makes it possible to blackmail a physician, and the only safe course is always to require the presence of a third person. This was clearly shown in the trial recently concluded at Leeds, England, of Dr. Heath, who was charged with an assault upon a female patient. It was shown, however, that she was subject to attacks of hysteria, and the jury decided that the case was one of hallucination.

Damages Sought for Delay in Transporting a Dead Body.

A curious suit has been brought in Illinois against the Chicago, St. Louis and Pittsburgh Railway, and the Pullman Palace Car Company, to recover $50,000. It is brought by George Brown, an attorney, of Decatur, Ill., whose wife died in May last, and whose remains were sent to Zanesville, Ohio, for interment. A party of five, besides Mr. Brown, went with the body, but by some mistake the body was taken from the train at Indianapolis, while the passengers went through to Columbus, Ohio. The body remained at Indianapolis twelve hours, and when it finally arrived at Zanesville it was decomposed. The time of burial had to be changed, and the friends were unable to look at the body. For these reasons the suit to recover damages was brought. The railroad in its answer denies any negligence, and claims that it did all that could be required of it.

Circumstantial Evidence.

The following interesting case was recently tried in Paris, and forms a notable instance of the incorrectness of seemingly conclusive circumstantial evidence. A woman was put on trial for strangling her baby, and at the preliminary examination she confessed the

crime. At the trial, medical evidence was heard, and the doctor told the judge that he did not believe the woman was the real culprit. The finger-marks were fresh on the victim's throat when he made the examination, and the marks were singular. He examined the woman's hands, and found her fingers long, slender, and well-shaped; but the marks were of a short-fingered hand, stumpy and misshapen, and one of the fingers—the first—was abnormally short. On this the prisoner burst into tears, and said she was fond of the child, had not destroyed it, and mentioned in her excitement the real culprit. He was a man of the better class of life, with whom she had lived as a domestic servant. His arrest followed, and the doctor pointed out that the prisoner's hands were formed as he had described, and, moreover, that the first finger was without a nail, and almost deficient of a joint. On this evidence the jury convicted the man.

International Medical Congress.

At a regular meeting of the Montgomery County Medical Society (Pa.), September 23, 1885, the following preamble and resolution were adopted, with but one dissenting vote:

WHEREAS, The American Medical Congress has invited the Triennial Congress which convened in Vienna in 1884 to hold its next meeting in this country in 1887, which invitation was accepted; and,

WHEREAS, Certain eminent and worthy members of our profession in some of our large cities are dissatisfied with the arrangements made by the Association for the government and management of the Congress and its personnel, and by their hostility are fomenting discord among the members of the profession in this country, which may imperil the success of the Congress; therefore,

Resolved, That we approve the action of the American Medical Association on this subject at St. Louis, in 1884, and at its meeting in 1885, and also the recent action of its committee on September 3, in New York, and that as individuals and as members of the Montgomery County Medical Society, we will do what lies in our power to aid the American Medical Association in its efforts to make the Triennial Congress a success.

C. Z. WEBER, M. D.,
Recording Secretary.

The Hammersly Will Contest.

The will contests involving the question of insanity and undue influence, which vex the courts constantly, have rarely been so entertaining to the public as that in which the mental capacity of Mr. Louis C. Hammersly, of New York, was questioned. The estate was a large one, and naturally the strife over it was bitter and long, but this was not the point that the general public was most interested in. An old servant named Becky Jones was called to testify against the mental powers of her employer, but she absolutely refused to say a word, and the court and lawyers were unable to induce her to change her mind. Imprisonment for nearly a year had no more effect upon her than threats or persuasions. The case could not wait for her, however, and it went on, having only very recently been decided. Becky Jones was discharged awhile since, but she kept her word, and said not a word.

The Plymouth Epidemic in Court.

The remarkable typhoid epidemic which raged so fiercely at Plymouth, Pa., last spring and summer, is to find its way into the courts. A short time since some fourteen suits were begun in the Court of Common Pleas of Luzerne county, against the Plymouth Water Company, by the relatives of some of the victims of the epidemic. About 100 in all died from the disease, and the plaintiffs in these suits charge that the epidemic was caused by the failure of the company to provide pure water for the people of the town.

Damages to the extent of $10,000 are claimed in each case, and it is expected that other suits will follow. The water company will fight the cases bitterly, and will endeavor to show that the typhoid fever originated not in the water, but from the bad sanitary condition of the town.

Correction.

EDS. MED. AND SURG. REPORTER:

In the report of my case of "Labor Complicated by Placenta Prævia and an Intramural Fibroid Tumor," in the REPORTER of February 13, I am by some inadvertence of the reporter made to say a very stupid thing, viz: "that it is an unusual circumstance for a woman over forty years of age to suffer from a fibroid tumor." The sentence should read as follows: "The fact that a woman over forty years of age, suffering from a fibroid tumor filling up the greater portion of the uterus, *should conceive*, is in itself, I think, an unusual circumstance."

This is a very small matter, but I shall be

much obliged if you will correct it in your next issue. JOHN MORRIS, M. D.
Baltimore, Md.

Oleomargarine.

The oleomargarine question is one of the most important, relating to the adulteration of food products, and the efforts to prevent its manufacture and sale are giving the courts of the different States, and particularly of New York, considerable business. Since the Court of Appeals in that State decided that the manufacture could not be absolutely prohibited, a law has been passed making the offering for sale of oleomargarine as butter a penal offense, no matter whether the seller had knowledge of it or not. A test case involving this point has just been tried in New York city, and it will be taken to the Court of Appeals for final settlement.

Medical Society of the State of Pennsylvania.

This body will hold its thirty-seventh annual session in the city of Williamsport, June 2, 3, and 4. The programme of the entire session is required to be distributed at least one month before the meeting, therefore all who desire to present papers are requested to forward the title and a brief abstract of the subject at an early day. No voluntary paper is allowed to occupy more than twenty minutes in reading.

DR. T. H. HELLSBY, Williamsport,
Chairman of Com. of Arrangements.
W. B. ATKINSON,
Permanent Secretary.

Information from Pasteur.

M. Pasteur, in reply to a letter asking advice as to the case of Councilman Denizot, of Cape May, N. J., who was bitten while separating two fighting dogs on New Year's day, writes:

"When a dog is enraged, he dies in the madness in a few days. So if the dog of which you speak in your letter of January 3 lives yet, it is because he was not enraged, and the person whom he bit has nothing to fear. Let him take care of his bite as an ordinary wound."

Druggists to be Warned.

At the meeting of the New York State Board of Health, February 3, the chemists from different parts of the State, appointed to investigate the matter, reported that many druggists were selling certain drugs below the regular scale of purity. They were ordered to inform such druggists that by selling drugs below the standard of purity they made themselves amenable to the laws.

Personal.

Dr. J. C. Richards, Phillipsburg, Pa., desires the present address of Dr. W. H. H. Gibbons, who practiced at Glen Hope, Pa., about 1859.

Items.

—Cinchona cultivation has been commenced in Guatemala. The plantations are at an altitude of 4,000 to 5,000 feet.

—The cinchona trees of all ages now under cultivation in the Wynaad district (S. W. India) number 5,000,000.

—The first course of medical lectures given in what is now the United States was delivered by Dr. Cadwallader, at Philadelphia, in 1751.

—By ministerial decree the importation into Roumania of patent medicines and proprietary articles, with the exception of some specially declared exempt, has been prohibited from January 15, 1886.

—A Los Angeles accoucheur was about to to take the placenta with him for some scientific purpose when the new-made mother cried: "O, doctor! for God's sake leave that and let the nurse burn it, or I shall have terrible after-pains." The doctor left it, the nurse burned it, the woman had severe pains, and—was the M. D. sorry for her?

—There appears to be much room for the sanitarian in the cities of Japan. We learn from the Transactions of the Society for the Advancement of Medical Science in Japan, that in a city with a population of a million and a quarter the death-rate amounts to 56 per 1,000.

—Servant (to drug clerk): "Oi want twinty-foive cints' worth of powder." Drug clerk: "What kind of powder—face powder?" Servant: "Oi don't know, sorr." Drug clerk: "Who is it for?" Servant: "It's for Mrs. Hendricks, the lady what kapes the boordin' house beyant the corner." Drug clerk: "Oh, yes! I used to board with Mrs. Hendricks myself. She wants insect-powder."

—Dr. Govan stated at the New York State Medical Association that he had used aniline oil for the purpose of producing

local anæsthesia when laying open felons and performing other minor operations. There was absolutely no pain, even in cutting down to the bone, when the finger had first been dipped for a short time in oil.

—Hydriodic acid is growing in favor in cases of spasmodic asthma. It is given as a syrup in doses of from ʒss to ʒj. The syrup is much more stable than syrup ferri iod., and contains one per cent. of absolutely pure hydriodic acid. A large number of patients state that doses of 20 grains of the syrup afforded them more relief than any other remedy for asthma, surpassing even grindelia and the much-vaunted mixture of ext. grindelia and syrup of garlic.

—Gelatin bougies and suppositories are made of firmer consistency (Rundschau, No. 45) by the addition of acacia, without, it is claimed, interfering with their solubility. The proportion is about as follows: Gelatin, 5 ounces; acacia, 5 ounces; glycerin, 12½ ounces; and water sufficient to make 25 ounces. The gelatin and acacia may be dissolved in water separately, then mixed with the glycerin and evaporated to the proper consistence.

—In a recent number of *Brain*, Professor Dreschfeld has further interesting observations on alcoholic paralysis. He has found that Magnus Huss, who is generally credited with having been the first to describe a paralytic form of chronic alcoholism, was preceded by thirty years by Dr. James Jackson in the United States. The latter wrote in 1822. Dr. Dreschfeld has clinically divided this article into two groups, alcoholic ataxia and alcoholic paralysis—a classification followed by Lowenfeld, Moëli, Schulz, and Krück. Alcoholic paralysis is a multiple peripheric neuritis.

QUERIES AND REPLIES.

Papayotin.

Dr. Lawrence Wolff, of Philadelphia, thus kindly answers our numerous inquiries in reference to papayotin:

Moncorvo, of Rio de Janeiro, first called attention of the medical world in 1879 to the peptonizing power of the milky juice of the unripe fruit of the melon tree, or papaw, the carica papaya L., carica vulgaris D. C., of the natural order of papayaceæ, habitat Brazil and the tropical countries of South America. It had been long ago employed by the natives of these countries as a vermifuge, but large doses were cautioned against as possessing an irritant and corrosive action on the intestinal mucous membranes.

The early reports of Moncorvo regarding the digestive principle of the juice, obtained by precipitating it with alcohol as an amorphous greenish substance, which he termed "caricin," were soon confirmed by Bonduit and Wurtz. The latter of these separated from the papaw juice a digestive principle similar to pepsin in its action, which he called "papain," and which Balke named "papayacin." More recently, Zeckolt, of Rio de Janeiro, separated both from the milk of the fruit as well as from the leaves, the digestive principle, "papayotin," which is the one now generally employed. Zeckolt stated that the fruit yielded 7.848 per cent., and the leaves 0.119 per cent., but that nevertheless the leaves could be worked to better advantage. The inference is that the "papayotin" of the market is largely obtained from the leaves, although the product from this source appears to leave less digestive power than that of the fruit.

The juice of the unripe fruit is obtained by incisions into the rind. Incisions into the bark of the tree, and the wounds from tearing off leaves or branches, also yield digestive juice. It is of neutral or slightly acid reaction, of bitter taste, and gelatinizes when mixed with about three times its volume of water. When sun dried, it is a yellow plastic substance, that can can be kept for some time without impairing its virtues. It is said that the juice of other species of papaya leave similar peptonizing properties to that of the papaw.

The papaw juice is a decided peptonizing agent, dissolving muscular fiber, gluten, croup membranes, etc., coagulating the casein of milk, and redissolving the coagulated casein at the temperature of the body. The solutions so made possess the characteristics of peptones. The irritant action of the juice is not apparent in the isolated digestive principle. According to Wurtz, papain digests 1,000 times its weight of moist fibrin. Experiments made with some specimens of papayotin seem not to confirm the great digestive power of this agent, while others again fully demonstrate it. The advantages of the digestive principle of papaw juice over pepsin is that it will act either in neutral or alkaline solutions.

According to Grelletz, one decigram of papain corresponds to about one grain of the recent juice, and is sufficient to dissolve about 50 grains of meat. Very excellent reports have been made of the use of papain for the dyspeptic symptoms and gastro-intestinal irritation of cholera infantum, while recently the application of a solution of papayotin of one part in twenty parts of water or glycerin has been recommended to dissolve the membranes of pharyngeal diphtheria. Samples of excellent papayotin have been sent to the writer by Messrs. Parke, Davis & Co., which had been imported by them.

Terebene and its Derivatives.

Having been asked by several correspondents for some information about Terebene, we will answer all with the following annotation from the *Brit. Med. Jour.*, Feb. 6:

"This substance, which has lately come into prominence as a therapeutic agent, was first manufactured many years ago. As far back as 1873, M. Riban read a series of papers before the Pharmaceutical Society of Paris on this and similar substances. By acting on twenty parts of well-rectified oil of turpentine, boiling at 160° C. (320° Fahr.), with one part of concentrated sulphuric acid, a product is obtained by distillation at 250° C. (482° Fahr.), which is a mixture of terebene and cymene. The liquid so prepared is treated several times with caustic potash, in order to eliminate any acid products. By fractional distillation the following products are obtained: 1. Terebene, with a boiling point of 156° C. (312.8° Fah.); 2, cymene, boiling at 170° C. (338° Fahr.); 3, a camphoraceous substance, which distils over at 200° C. (392° Fahr.); and 4, colophene and several higher compounds. Pure terebene (C_{10} H_{16}) is a colorless mobile liquid, with a faint odor, of specific gravity of .877 to 1,000. Treated with dry hydrochloric acid gas, a crystalline mass forms, which consists of hydrochlorate of terbene (C_{10} H_{16} HCL), commonly known as turpentine camphor. This substance, when the uncrystallized liquid has been expressed, consists of white friable crystals, which can be reduced to a powder without much difficulty, which distinguishes it from its isomeric hydrochlorate of turpentine, which is soft and pasty. Indeed, it was in seeking the causes of this divergence of qualities that M. Riban, who could not attribute it to the presence of impurities, was enabled to discover one of the most remarkable properties of the hydrochlorate of terebene, namely, its separation into camphene and hydrochloric acid, under the influence of cold, and its rapid resolution into the same substance by the action of cold water, which takes up the acid. The preparation of the hydrochlorate is by no means easy, if the compound be desired in a state of purity, and it can only be effected by means of special precautions and delicate manipulation. The raw material is dissolved in rectified spirit, at a temperature which must not exceed 55° to 60° C., as otherwise the major part of the mass may be converted into liquid products. On cooling the solution, large flakes of the hydrochlorate, now rather poorer in chlorine, are deposited. These crystals, deprived of their alcohol in a dry cold atmosphere, are then submitted to the action of hydrochloric acid gas. The crystals are melted in presence of this gas, at a temperature of 130°, and allowed to cool gradually. The hydrochlorate of terebenthene is obtained by acting on the oil of turpentine with hydrochloric acid, and this is isomeric with the analogous compound of terebene. Other isomers exist, as for instance the hydrochlorate of camphene, as well as the hydrochloric ether of natural or artificial borneol. Terebenthene was separated in a state of purity by M. Berthelot, by distilling the crude material *in vacuo*, after neutralization of the acid impurities."